LIAMES, Campinas, SP, v. 22, 1-49, e022001, 2022 doi: 10.20396/liames.v22i00.8666489

A comparative reconstruction of Proto-Tupi-Guarani kinship terminology[1]

Fernando O. de Carvalho
Universidade Federal do Amapá, Brasil
https://orcid.org/0000-0002-2115-7416

Joshua Birchall
University of New Mexico, United States
https://orcid.org/0000-0002-6110-6904

ABSTRACT: This paper proposes a reconstruction of the kinship terminology system of Proto-Tupi-Guarani (PTG). The focus of the contribution lies in presenting a solid core of cognate sets and argumentation for the reconstruction of formal and semantic aspects for each relevant etymon. The etymologies are preceded by a review of our current understanding of PTG kinship terms and by a selective overview of those aspects of PTG structure that will play out more importantly in the proposed etyma. Finally, we end by considering a few open issues in the reconstruction of the PTG kinship system, many of which are raised here for the first time, and by addressing its characteristics in relation to traditional typologies of these terminology systems.
KEYWORDS: Tupi-Guarani; Kinship terminology; Etymology; Reconstruction

RESUMO: Este trabalho apresenta uma reconstrução da terminologia de parentesco do Proto-Tupi-Guarani (PTG). O foco da contribuição consiste na apresentação de um conjunto sólido de cognatos, e da argumentação necessária para a reconstrução de aspectos formais e semânticos de cada étimo. A apresentação das etimologias é precedida de uma revisão do estado da arte sobre o sistema terminológico de parentesco do PTG, além de uma discussão de aspectos pontuais da estrutura do PTG que terão relevância para a avaliação das etimologias propostas. Por fim, consideraremos alguns problemas em aberto a respeito da reconstrução desse campo terminológico específico, muitos dos quais levantados e identificados aqui pela primeira vez, e discutiremos as características do sistema terminológico de parentesco do PTG em termos das tipologias tradicionais destes sistemas terminológicos.
PALAVRAS-CHAVE: Tupi-Guarani; Terminologia de parentesco; Etimologia; Reconstrução

1. Introduction

The goal of this paper is to provide a thorough reconstruction of the kinship terminology of Proto-Tupi-Guarani (henceforth, PTG), the common ancestor of the 30 or so languages that make up the largest and most geographically dispersed branch of the Tupian language family (see e.g., Jensen 1999; Eriksen & Galucio 2014). We discuss the reconstruction of PTG etyma based explicitly on the recognition of regular correspondences attested in cognate elements in a set of languages (see Table **1**), also providing explicit information on morphological and semantic aspects of both the comparanda and the reconstructed PTG forms. As discussed in section **2**, although the reconstruction of PTG is significantly more advanced than is the case with most South American indigenous language

[1] We are grateful to an anonymous reviewer, Gustavo Godoy, and Andrey Nikulin for reading a version of this paper and contributing with commentary and observations on its content and form. We would also like to recognize the support from the British Academy International Partnership and Mobility Award (PM160281), as well as contributions from Fiona Jordan, Sam Passmore and Luis Henrique Oliveira, in constructing the original dataset used in this study. The usual disclaimers apply, and the authors are fully responsible for any remaining shortcomings.

groups (a task no doubt facilitated by the limited diversity within this family), there are many aspects of the formal and semantic reconstruction of PTG that remain open to debate and require further investigation. Also, current reconstructive work on Tupi-Guarani languages has been plagued by a lack of explicitness, which includes the presentation of reconstructed etyma in isolation from any comparison of cognate forms, and an over-reliance on a few languages thought, in advance, to be particularly conservative. In the present paper we take a definite stand on most of these open issues, seeking to fill gaps in our knowledge of PTG and discussing a number of developments that took place in specific languages, in particular the least conservative ones.

The data for this study are drawn from a large-scale database on Tupi-Guarani kinship terms compiled in recent years (see Birchall et al. 2019). The languages and sources consulted for this study are given in Table **1** below in the alphabetical order of their abbreviation (more information on the sources and their uses for the present work appear in section **4**).[2]

Table 1. Languages and sources

Language	Abbreviation	Glottocode	Sources
Aché	ACH	ache1246	Thompson 2019
Anambé	ANA	anam1249	Arnaud & Galvão 1969
Avá-Canoeiro	AVC	avac1239	Silva 2005; Borges 2006
Araweté	AWT	araw1273	Viveiros de Castro 1986
Chiriguano	CHR	east2555	Dietrich 1986
Emerillon	EME	emer1243	Hurault & Frenay 1963
Guajá	GUJ	guaj1256	Cormier 2003
Guarayu	GUY	guar1292	Hoeller 1932
Ka'apor	KAA	urub1250	Godoy 2017 p.c.; Kakumasu & Kakumasu 2007; Baleé 1984; Ribeiro 1996
Kamayurá	KAM	kama1372	Galvão 1953; Seki 2000
Kayabí	KAY	kaya1329	Weiss 1985, 2005
Kaiowá Guarani	KGU	kaiw1246	Watson 1944; Wagley & Galvão 1946
Kukama-Kukamilla	KOK	coca1259	Vallejos & Amías 2015

[2] See that Tenetehára is usually recognized as encompassing two major varieties: Tembé and Guajajára. Their differences are minimal, yet most sources are explicitly restricted to one or the other of these dialects. Whenever relevant, we will refer to either Tembé or Guajajára in the discussion of the data.

Mbyá Guarani	MGU	mbya1239	Cadogán 1992; Dietrich 2014; Dooley 1998
Old Guarani	OGU	tupi1282	Montoya 1639, 1640; Restivo 1722
Parakanã	PAR	para1312	Fausto 1995; Silva 2003
Pauserna	PAU	paus1244	Ramirez et al. 2017
Paraguayan Guarani	PGU	para1311	Dietrich et al. 2015; Peralta & Osuna 1950; De Canese 1983
Sirionó	SIR	siri1273	Holmberg 1950; Schermair 1949, 1957
Tapirapé	TAP	tapi1254	Wagley & Galvão 1946
Tenharim	THE	tenh1241	Peggion 1996
Tenetehára	TEN	temb1276	Wagley & Galvão 1946; Boudin 1978
Tocantins Asurini	TOC	toca1235	Arnaud 1963, Cabral & Rodrigues 2003
Old Tupi	TUP	tupi1273	Araújo 1686, VLB
Wajãpi	WAJ	waya1270	Grenand 1989

The paper is organized as follows: Section **2** provides an overview of studies on the kinship terminology of Tupi-Guarani languages from both anthropological and historical linguistic perspectives — with an obvious emphasis on the latter. We discuss, in particular, issues in the currently available reconstructions of PTG kin terms that seriously limit their usefulness, either as snapshots of the formal phonological or morphological properties of PTG, or as depictions of fully functioning kinship systems that can be understood in terms of known generalizations on the organization of these systems. These provide the justification for the present study. Section **3** is devoted to the discussion of specific issues on the phonology and morphology of Tupi-Guarani languages (and, hence, of PTG itself) that are of direct relevance to our task. We discuss —and, whenever necessary, take a stand, even if a tentative one — in relation to some of the open and debatable issues concerning the reconstruction of PTG phonology and morphology. This section also presents the most noteworthy phonological developments of PTG into its daughter languages, thus providing a basic framework for the evaluation of the comparative sets present in the next section. In section **4**, we present the whole set of etymologies supporting the reconstruction of the PTG kinship terminology system, presenting explicit proposals for the reconstruction of the referential terms for all the primary consanguineal kin relations from the generations of grandparents (+2) through that of grandchildren (-2), as well as a number affinal terms. Section **5** discusses formal and semantic issues that raise problems for the reconstruction of kinship terms for cross-cousins for PTG. In particular, these show an interesting semantic association to terms for cross-nieces/nephews, either as language-specific colexifications or as semantic disparities in cognate elements, in addition to some difficulties in identifying their precise phonetic form. Finally, **6** offers a

summary of the findings and discusses the reconstructed PTG system in terms of the traditional parameters for the analysis and classification of kinship terminology systems.

2. Tupi-Guarani kin terms in anthropology and in historical linguistics

The kinship terminology of Tupi-Guarani peoples is featured prominently in the early colonial literature on the indigenous peoples of South America and constitutes some of the first linguistic documentation available for these languages. Ever since the first description of a lowland South American language in Anchieta (1595),[3] and in subsequent works, authors faced the challenge of describing the terminology of kin relations of peoples that have a social organization quite different from their own, generally without the terminological and ethnological tools available to modern anthropologists. Already in Anchieta (1595: 14) it was observed that the indigenous groups along the Brazilian coast speaking varieties of the Old Tupi language used different terms to refer to siblings of different relative ages. In the first catechism of the same language that has come down to us, Araújo (1686)[4] presents a detailed description of the kinship terminology, highlighting facts such as the differential treatment of paternal versus maternal aunts and uncles, which was also later observed by Montoya (1639) for Guaraní speakers on the Jesuit missions in the province of Paraguay.

Throughout the ethnographic boom of the second half of the twentieth century, the kinship systems of Tupi-Guarani peoples again came to the forefront of americanist anthropology in classic works such as Wagley (1977) on the Tapirapé and Viveiros de Castro (1986) on the Araweté. These ethnographic descriptions have since played a prominent role in Amazonian ethnology, especially in the formulation of the typology of lowland South American kinship systems proposed by Viveiros de Castro & Fausto (1993) that contrasts the bifurcate merging systems commonly seen in Amazonian societies with the "semi-complex" systems typically seen among the peoples of Central Brazil, especially those speaking Jêan languages.

The comparison of kinship terms in Tupi-Guarani languages from a linguistic perspective began with the first systematic classification of the languages based on phonological criteria in Lemle (1971). This work was the first to apply the comparative method to data on the languages of this family, and to propose a reconstruction of a few kin terms in PTG, which was then expanded upon and refined in later works such as Schleicher (1998) and Mello (2000), albeit not all sources agree on the reconstruction of all forms. Other studies have proposed additional reconstructed forms for PTG kin terms, such as Rodrigues (2005, 2007, 2010) and Corrêa da Silva (2010). The set of PTG kinship terms in the available literature appear below in Table **2** (note that the orthographic conventions of the sources are retained, e.g., **c* = **ts*).

[3] We use the label 'description' for early missionary, colonial work such as Anchieta's *Arte* in an intentionally liberal sense. These works were never intended as 'language descriptions' in the modern understanding of this notion, being much closer to pedagogical or instructional material designed to a very specific audience involved in the tasks of religious conversion and conduction of Christian rituals such as baptisms and marriages.

[4] The first edition of Araújo's catechism is dated to 1618, but we have cited the revised and corrected version of 1686 since this is the one that will be employed here as one of the sources on Old Tupi data.

Table 2. Reconstructed PTG kinship terms in the published literature

Form	Meaning	Source
**-amõj*	'grandfather'	Lemle (1971: 116); Rodrigues & Dietrich (1997: 274); Rodrigues (2007: 190).
**-arɨj*	'grandmother'	Rodrigues & Dietrich (1997: 274)
**-cɨ*	'mother'	Lemle (1971: 122); Schleicher (1998: 334)
**-ʧɨ*	'mother'	Rodrigues (2005: 41)
**-ub*	'father'	Lemle (1971: 124)
**-uß*	'father'	Rodrigues (2005: 42)
**-tuß*	'father'	Schleicher (1998: 350)
**-uβɨr*	'father's brother'	Rodrigues (2010: 8)
**-aiʧe*	'parent's sister 1'	Mello (2000: 151)
**-iʔir*	'parent's sister 2'	Mello (2000: 209)
**-tʃiʔɨr*	'mother's sister'	Rodrigues (2010: 8)
**tutɨr*	'mother's brother'	Mello (2000: 198)
**-kɨjßɨr*	'woman's brother'	Rodrigues (2007: 176)
**-ɨker*	'woman's elder sister'	Rodrigues (2007: 181)
**-kɨpiʔɨr*	'woman's younger sister'	Rodrigues (2007: 183)
**-ɨke-ʔɨr*	'man's elder brother'	Rodrigues (2007: 181)
**-enɨr*	'man's sister'	Rodrigues & Dietrich (1997: 274)
**-ɨwɨr*	'man's younger brother'	Mello (2000: 207); Birchall et al. (2019: 92)
**-ajɨr*	'man's daughter'	Rodrigues & Dietrich (1997: 273)
**-aʔɨr*	'man's son'	Rodrigues (2007: 187)
**-memɨr*	'woman's son/daughter'	Rodrigues (2007: 188)
**-peŋ*	'nephew'	Mello (2000: 187)
**emɨmɨnõ*	'grandchild 1'	Mello (2000: 160)
**emɨrirõ*	'grandchild 2'	Mello (2000: 160)

**-embi-rekó*	'wife'	Schleicher (1998: 335); Rodrigues (1998).
**-atɨ*	'wife'	Rodrigues (2007: 184)
**-men*	'husband'	Rodrigues (2007: 189)
**-menɨ*	'mother-in-law 1'	Mello (2000: 179)
**-aitso*	'mother-in-law 2'	Mello (2000: 151)
**-ratiʔu*	'father-in-law'	Mello (2000: 194)
**-ukeʔi*	'sibling-in-law'	Mello (2000: 202)
**-peʔum*	'son-in-law'	Mello (2000: 187)

Despite these early efforts, there are serious limitations to our current knowledge of PTG kinship terminology and of how these terms evolved in the daughter languages, as reflected in the etyma presented in Table **2**. Most of these limitations seem to stem from the lack of an explicit application of the comparative method to the data, and from the fact that, with very few exceptions (e.g., part of Rodrigues 1998) none of these studies focus on kinship terms specifically as a structured lexical field. First, note that forms cited in Rodrigues' works (Rodrigues & Dietrich 1997; Rodrigues 2005, 2007), and in the work of his students (Côrrea da Silva 2010), usually with the goal of comparing PTG to other Tupian branches, are never explicitly arrived at by first applying the comparative method to presented data from TG languages. This then precludes the independent evaluation of the reconstructed etyma in both their formal and semantic aspects, and one is often left with the impression that these reconstructions simply reflect a kind of "telescoping" of Old Tupi forms back to PTG.[5] In the absence of supporting cognate sets and thorough reconstructive argumentation, the empirical basis to these etyma remains closed to scrutiny by interested peers and, moreover, the formal (and semantic) developments in the less conservative languages are missed entirely and remain unaccounted for.

A second, critical issue with most if not all work on PTG kin terms so far concerns the formal side of the proposed etyma. A particularly troubling aspect of these PTG forms is the lack of information on certain stem-initial consonants to which morphological value is often assigned, the so-called 'relational prefixes' (see Meira & Drude 2013). In the absence of this information, either in the comparanda or in the reconstructed forms, one cannot know anything about a central aspect of the morphology of TG languages, namely, the system of inflectional classes (see section **3.2** for discussion). These morphological classes of inflectable stems are not only central to almost every TG language, just as they likely were to PTG as well (Schleicher 1998: 113; Jensen 1999: 146), but certain generalizations about their structure concern kin terms specifically, such as the claim that certain inflectional classes are composed mainly of nouns from this specific semantic domain (Schleicher 1998: 134; Meira & Drude 2013: 12). A well-argued reconstruction of morphological features for the kinship terms of PTG has the potential to illuminate TG historical linguistics more generally.

Third, most etymologies in past comparative work (that is, works *not* relying on Old Tupi as a proxy for PTG) display varying amounts of distributional limitations. Thus, Schleicher's (1998: 343) etymology for **-membɨt* 'child (Female Ego)' has only four

[5] Although one might retort that in this case one cannot be too off the mark, since Old Tupi is by all accounts a conservative language, the fact remains that conservative languages cannot be taken for granted as "living fossils".

supporting cognates, while Mello's (2000: 174) etymon for **-kɨβɨt* 'brother (Female Ego)' is based on two cognates only. In the etymologies presented in section **4**, the distributional aspects of the etymologies in relation to the existing internal classifications of the TG language family are explicitly addressed, in particular when a relatively limited number of cognates may raise doubts about the strength of any given set.

Finally, in the domain of semantics, many of the existing, published reconstructions are not specific enough on certain crucial aspects of the meaning of specific classes of terms. Birchall et al. (2019: 92) noted, for instance, how Mello (2000) reconstructed PTG terms for 'aunt' without specifying whether a maternal or a paternal aunt was the intended referent. Likewise, Schleicher (1998: 343) reconstructs *membɨr* 'child' without noting that the term was likely restricted to a female Ego. Aside from the lack of precision in the semantics of proposed etyma, the fact that the PTG kinship terminology system has never been approached as a structured lexical field, that is, as a coherent system, inevitably contributed to the fact that certain meanings have not been considered at all, and that important etymological connections between different etyma have been missed by previous investigators. Therefore, we propose reconstructed kinship terms for certain meanings/genealogical positions that so far have not been discussed in the published literature, and some hypotheses suggesting further lines for etymologization are suggested as well. In sum, we aim to provide a reconstruction of the PTG kinship system that stems from a more rigorous and focused application of the comparative method than is the case in existing published reconstructions of PTG.

3. A selective overview of Tupi-Guarani languages

The goal of this section is to give the reader some background on the most relevant formal aspects of Tupi-Guarani language structures for the present etymological work. After a discussion of the view of Proto-Tupi-Guarani phonology accepted here, and of the ways in which some of the daughter languages have diverged from this reconstructed system, we give some attention to the issue of inflectional classes, which lies at the boundary between the phonology and the morphology of these languages. Given that the distribution of attested cognates supporting each etymon is of crucial importance in assessing the strength of the etymologies proposed here, Figure **1** below presents a comparison of two current proposals on the internal classifications of the family: Rodrigues & Cabral (2002) and Michael et al. (2015).

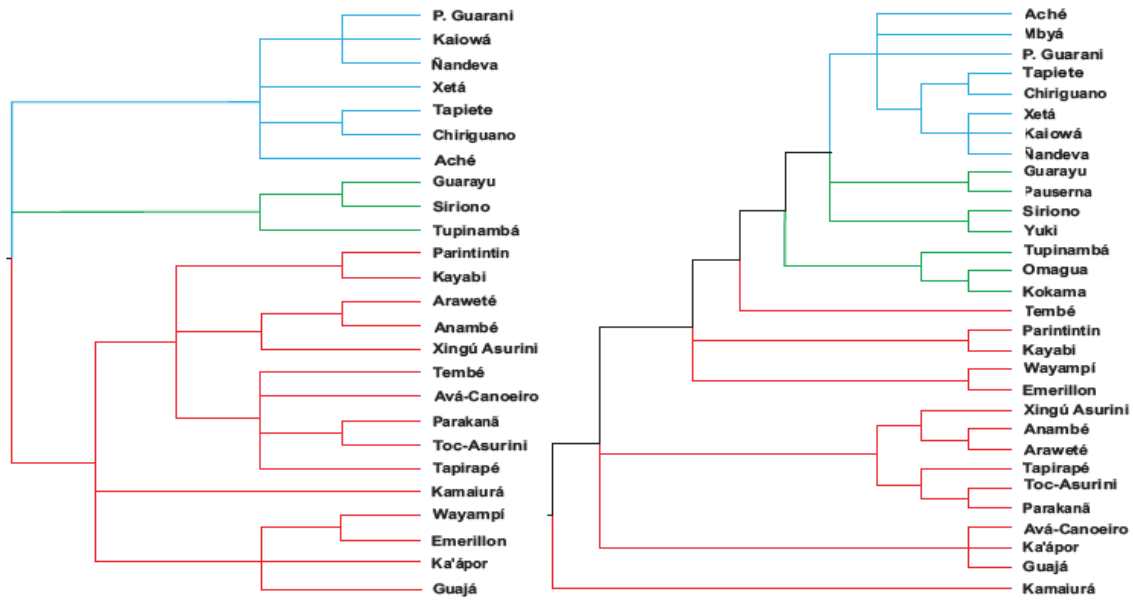


Figure 1. Two internal classifications proposed for the TG language family: Rodrigues & Cabral (2002) on the left, and Michael *et al.* (2015) on the right (image from Michael et al. 2015).

The classification of Michael et al. (2015) is based on the cognate history of basic vocabulary and regional terms in an unpublished lexical dataset, while that of Rodrigues & Cabral (2002) is based on phonological characters. Although both proposals should be taken with a grain of salt, they nevertheless provide a framework for the interested reader to evaluate the distributional strength of the cognate sets identified in Section **4**.

3.1 Tupi-Guarani Phonology

Tupi-Guarani languages are not strongly differentiated in terms of their segmental phonological inventories or the phonotactic patterns that account for the distribution of these segments. The presentation that follows starts from a consideration of the currently accepted reconstruction of the PTG phonological system, and explicitly discusses those characteristics that have changed the most in the more divergent languages. The focus of our attention naturally lies on regular sound change developments, reserving discussion of sporadic or isolated developments to the individual etymologies appearing in section **4**. Since these etymologies feature cognate forms in the orthographies employed in the primary sources consulted, we also present here the most common conventions used for the representation of specific phonemes/phones in the existing sources.

Our current understanding of PTG phonology derives from the cumulative work of a series of researchers, most notably Lemle (1971), Jensen (1984), Schleicher (1998), Mello (2000), and, to a lesser extent, the recent contributions of Meira & Drude (2013, 2015), and the discussion in the remainder of this section largely follows these studies. Given the relatively large amount of work done on PTG and the limited phonological diversity found in the daughter languages, it is safe to say that there is a large core of consensually accepted claims about PTG phonology, although, as noted below, a certain number of open or uncertain issues remain. Since the reconstruction of PTG phonology has arguably relied on a few strongly conservative languages (notably Old Tupi), a lot remains unknown about the detailed historical development of individual languages, notably in the case of the more innovative ones. In the etymologies presented in section **4**, we touch on, and even frame for the first time, many of these problems that belong properly to the historical phonology of particular TG languages; yet, given the limitations in the scope of this paper we do not discuss any of these issues in great detail.[6]

PTG phonotactics is rather simple, as is the case in most if not all daughter languages. Syllables are V, CV and CVC. In most TG languages and, presumably, in PTG as well the main (word-level) accent falls on the final syllable of the stem, though unaccented, clitic-like suffixes are known to exist (e.g., the nominal marker **-a*; Jensen 1998: 505-506; 1999: 148-149). The accented syllable is also important for its association with nasalization. From a segmental perspective, the contrast between oral and nasal vowels is realized in the last, accented syllable (e.g., **maʔe* ‘thing; what’ vs. **maʔẽ* ‘to see’, **kuʔa* ‘waist’ vs. **kujã* ‘woman’), and the nasalization, when present, spreads regressively (that is, nasalization is purely allophonic in non-stem-final syllables). In those languages that have shifted the accent one syllable to the left, such as Guarayu, Xetá, Sirionó and Chiriguano (see Dietrich 1990: 16-17; Jensen 1999: 133), nasalization is displaced as well with the accentual shift. Thus, the Chiriguano reflexes of the PTG etyma given above are: *mbáe* ‘cosa, objeto’ [thing, object] vs. *mãe* ‘mirar’ [to watch], *-kúa* ‘cintura’ [waist] vs. *kũña* ‘mujer’ [woman] Dietrich 1986: 302, 303, 305, 306).

[6] The first author is currently engaged in producing a reconstruction of PTG phonology and a historical phonology of a sizeable number of TG daughter languages (Carvalho, in preparation).

Current accounts of PTG phonology claim that CVC syllables are restricted to word-final position at the PTG level (Jensen 1999:133), and codas could be *-*p*, *-*t*, *-*k*, *-*m*, *-*n*, *-*ŋ*, *-*j* and possibly, though not certainly, *-*w* as well. The following comments are in order: First, although the nasalization contrast is, as mentioned above, usually understood in terms of oral and nasal *vowels*, nasalization is a property of syllable rhymes, so that an oral nucleus followed by a nasal consonant, VN, and a nasal vowel followed by an oral consonant, ṽc, are unattested. Moreover, given that contrastive nasal vowels occur word-finally without a closing nasal consonant (e.g., *-*nupã* 'to hit'), one might say that nasality spreads from the nasal vowel to the final consonant in cases such as *-*kãŋ* 'bone'. Instead of proposing an abstract analysis, we have reconstructed more concrete PTG etyma in these cases, indicating nasalization both in the vowel and in the final stop consonant. Second, since word-final *-j* in TG languages is usually treated as a consonant (see discussion below), the consequence is that -Vj sequences are closed syllables and not diphthongal nuclei.[7] We have, accordingly, represented all sequences of a vowel and a high front palatal vocoid as *-Vj*, whether in word-medial or word-final position, which implies that closed, CVC syllables are, in fact, found word-medially. Although most languages seem to have rules undoing vowel sequences, and some morphemes have allomorphs for vocalic and for consonantal contexts, hiatus is tolerated morpheme-internally in many languages and seems to have existed in the ancestral language too.

Table **3** below presents the inventory of PTG consonantal segments, most of which are uncontroversial in their reconstruction, raise no issues of orthographic representation for their reflexes, and show little significant allophonic variation. Exceptions are discussed in the following paragraphs.

Table 3. PTG consonants

	Labial	Alveolar	Palatal	Velar	Glottal
Oral stops	*p	*t		*k	*ʔ
	*pʲ			*kʲ	
	*pʷ			*kʷ	
Affricates		*ts	(*ʧ)		
Nasal stops	*m	*n		*ŋ	
Continuants	*ß				
		*r			
	*w		*j		

PTG oral stops *p, *t, *k and *ʔ are retained as such in most languages when in onset position, a significant exception being found in languages or varieties that have lost the glottal

[7] This seems to be a widely shared and popular analysis of TG languages, although rarely argued for explicitly. This lack of explicitness motivates apparent contradictions, like the postulation of 'diphthongization' rules for TG languages (e.g., Jensen 1998: 612), despite the analysis of non-nuclear *-j* as a consonant. Further investigation, and clarity of exposition, are necessary in statements of PTG phonotactics.

stop **ʔ* (e.g., Yúki and some dialects of Chiriguano). The glottal stop is more commonly represented by an apostrophe <'>. Almeida et al. (1983), a source on Tapirapé, represents glottal stops as <*h*> instead, and in some of the Old Tupi and Old Guarani sources the presence of a glottal stop is noted by the use of diaeresis <¨> over the first vowel in a vowel sequence. A few Amazonian TG languages (Kamayurá, Xingu Asurini and Kayabí) have spirantized reflexes of **p* preceding **u* or **w*, with Kamayurá going farther and losing oral constriction features entirely (likely through **p* > **ɸ* > *h(w)*). Orthographically, *ɸ* is often represented as <*f*>.

Diverging positional reflexes of the oral stops are found in final coda/pre-pausal position, and are usually analyzed as synchronic morpho-phonological alternants or positional allophones of *p* (< **p*), *t* (< **t*) and *k* (< **k*).[8] These include nasal stops (e.g., Parakanã, Tocantins Asurini), unreleased stops (e.g., Zo'é, Kamayurá), aspirated stops (Xingu Asurini) and *zero*, the latter in languages that have eliminated PTG final stops (partially in Old Guarani, Guarayu, Zo'é and Amapari Wayampi; close to totally in the modern Guarani varieties). Despite the 'homogenizing' effects of phonological analysis on transcriptions, some sources employ less-than-perfect orthographic conventions, thus retaining some amount of phonetic detail. These are discussed, whenever relevant, in the etymologies in section **4**. Some of these developments are related to a process of final stop lenition when followed by a heteromorphemic vowel. This can be reconstructed for PTG as involving **-p* ~ **-ß* and **-t* ~ **-r* alternations, although some languages, such as Kayabí, have generalized this lenition to reflexes of the velar stop **-k* as well. A result of this general lenition of final stops are correspondences of the kind *p : ß*, *t : r* and *k : g*. Of these lenited alternants, *ß* is usually noted as <*b*> or <*v*>, these being the same symbols used for the reflexes of the inherited (non-alternating) **ß* in those languages that retain this bilabial segment as distinct from **w*. The lenited velar consonant is often written <*g*>, although in some languages (e.g., Guarani) it has a more continuant articulation, closer to [ɣ].[9]

Stops with secondary articulatory features (palatalization or labialization) are assumed here for PTG, in agreement with Schleicher (1998), Mello (2000) and Meira & Drude (2015). Note that these are analyzed as bi-segmental clusters in Lemle (1971) and in Jensen (1984, 1998), though the differences between these two analyses are immaterial to our present concerns, and we treat these phonological entities as complex (singleton) segments. The palatalized labial **p^{j}* is reconstructed for a single form, the verb **ts-ep^{j}ak* 'to see' (see e.g., Schleicher 1998: 336; Jensen 1999: 138). The reconstruction of **p^{w}* and **k^{w}* is uncontroversial and accepted by all studies on PTG, despite the different phonological analyses mentioned above. Some statements on PTG phonology add two labialized nasal stops **m^{w}* and **ŋ^{w}* (see e.g., Meira & Drude 2015: 278), though their occurrence can arguably be derived from the nasalization of **p^{w}* and **k^{w}*, respectively, being, therefore, excluded from the PTG inventory in Table **3**. Finally, PTG **k^{j}* is accepted here as part of the PTG inventory, and yet, this segment too raises a series of issues, none of which can be tackled in full in the present paper (see Jensen 1999: 139 and Meira & Drude 2015: 281-282 for discussion).

Nasal stops[10] **m*, **n* and **ŋ* are usually retained with minimal change in daughter languages. Most TG languages retain the PTG pattern whereby these consonants show fully nasal

[8] See that in agreement with Meira & Drude (2015) we have reconstructed these final consonants as stops **-p* and **-t*, not as **-ß* and **-r*, as in earlier reconstructions of PTG. Thus, Lemle's (1971: 125) etymon **kiß* 'louse' is best reconstructed as **kip* 'louse' instead.

[9] See that Guarani <*g*> reflects PTG stem-final **-k* only in those cases where the nominal suffix **-a* was absorbed as part of the stem, e.g., <*oga*> 'house' < **ts-ok-a*; elsewhere, **-k* is simply lost, e.g., <*pyhy*> 'to grab, hold' < **-pitsik* 'id.'.

[10] A reviewer questions our use of the label 'nasal stop' on the grounds that nasal consonants are sonorants. We will retain our use of this (fairly standard) label since it is problematic only on the assumption that 'stop' is synonymous with 'obstruent', which is, however, a bit misleading. Although full closure of the vocal tract

variants in nasal contexts and post-oralized ones in oral contexts (*[m] ~ *[mb], *[n] ~ *[nd] and *[ŋ] ~ *[ŋg]). Languages that have lost the system of autosegmental nasal spread, also likely present in PTG, no longer display these contextually determined realizations (e.g., Tenetehára, Tocantins Asurini) and this is also the case in languages that do seem to retain at least traces of regressive nasal spread (e.g., Amapari Wajãpi). Other languages, such as Zo'é and Emerillon, seem to have eliminated the nasal phase of the post-oralized variants, thus showing fully voiced stops in some contexts. In the nasal series, only the velar nasal *ŋ* is represented in more than one way, as <ng>, <g̃>, or <g> depending on the language or source.

Phonological analyses of most Tupi-Guarani languages posit a single palatal consonant, often an approximant/glide *j*, whose realizations differ depending on position and the presence of a contextual nasal feature. The recurring generalization is that *j* is often realized as a 'strengthened' consonant, [ʒ], [ʤ], [ɟj], [ʂ] or [ʧ], in onset position, while the approximant [j] is found in coda (post-vocalic) position (though in many languages [j] is found in onsets too, at least as a 'free variant', as in Wajãpi, or even as the characteristic allophone, as in Chiriguano; Dietrich 1986: 53-54). Nasal variants, described as either [ɲ̃] or [ɲ], appear usually preceding a tautosyllabic nasal vowel, or followed by certain nasalizing elements, either surface nasal vowels or specific morphemes.[11] The PTG rhotic **r* has a tap/flap reflex, most often symbolized as [ɾ], in the majority of the daughter languages. Minor or language/branch-specific reflexes include *ʁ* in Avá-Canoeiro (Borges 2006: 61; without a clearly understood conditioning for **r* > *r, ʁ*), and a lateral reflex in two northern TG languages, Wajãpi (Upper Oyapock variety) and Emerillon, which is likely the result of influence from the Cariban language Wayana, whose rhotic has a characteristic lateral release. This is a recent shift, as some Wajãpi dialects (Amapari Wajãpi, for instance) retain PTG **r* as *r*.[12]

An opposition between two bilabial continuant consonants, sonorant **w* and fricative **ß*, is reconstructed for PTG (Lemle 1971: 112; Schleicher 1998: 15-16), even though many daughter languages show only *w* as a merged reflex for both proto-segments (with [ß] as a free or positional variant only). In medial position as syllable onsets, PTG **w* and **ß* seem to contrast (**-t-uwɨ* 'blood', **ɨβɨ* 'earth'; **jawat* 'jaguar', **aßa* 'man, person'; **-t-uwaj* 'tail', **-t-oßa* 'face'). Thus, there is reason to keep a PTG contrast between **w* and **ß*, as we do here.[13]

The series of PTG affricates constitutes one of the thorny open problems of TG historical phonology – one that we will not resolve here. PTG was first reconstructed with a single affricate segment in Lemle (1971), symbolized as **c*. Later, however, Jensen (1984) introduced two such segments, **ts* and **ʧ* (often symbolized **c* and **č*, respectively), a proposal worked out with Aryon D. Rodrigues and kept in TG linguistics until Schleicher (1998). The reconstruction of *two* affricates for PTG instead of only one was felt to be justified in view of the diverging reflexes in the members of Rodrigues' (1985) Subgroup I, which includes the

characterizes a subset of the obstruent consonants (such as [p]), sonorancy is maintained in a contoid such as [m] due to the effect nasal leakage has in promoting rarefaction of the oral cavity.

[11] Pereira (2009: 77) suggests that for Xingu Asuriní *j* and *ʤ* contrast as two distinct phonemes in the language, though it is our evaluation that the evidence presented for this is hardly compelling. The only TG language to have a glide/semivowel *j* and the affricate *ʤ* as contrastive segments is the highly divergent Aché, and no credible explanation exists nowadays for the origin of this opposition. Dietrich (2015: 412) simply postulates an unconditioned split (one among many) of PTG **j* in Aché. More work is needed on the diachrony of this fascinating and highly divergent language. Finally, note that Teko (better known as Emerillon), is possibly the sole TG language to have 'strong' reflexes of coda **-j* too (as in *t-apiʧ* 'house' < **t-apɨj* 'hut, makeshift house').

[12] The Amapari variety of Wajãpi is often described as being less strongly affected by contact with Cariban languages, in comparison to the more north-western varieties spoken at the Upper Oyapock river. The extent of this difference is still a matter for future investigations.

[13] Although no minimal pairs have been presented as evidence for the PTG **w* - **ß* contrast, one would be hard pressed to account for the distribution of these PTG segments as predictable variants of a single proto-phoneme whose distribution is conditioned by the environment in the near-minimal pairs offered (see e.g., **jawat* 'jaguar', **aßa* 'man, person').

Guarani(an) varieties/languages (Old Guarani, Avañe'ẽ or Paraguayan Guarani, Kaiowá, Mbyá, Nhandéva/Apapocúva, Chiriguano/Tapieté). These languages often show a 'weaker' (*h* or ∅ < **ts*) and a 'stronger' (*s* or *ʃ* < **ʧ*) reflex, and these are taken to contrast, and, therefore, to reflect two distinct PTG consonants. Schleicher (1998) raised the issue that the correspondence patterns, when seen across Guarani varieties/languages, are so erratic that accounting for them in terms of only two affricates (as opposed to, say, three or four) is arbitrary or non-explanatory. Later researchers of TG historical linguistics have followed Schleicher's study and claimed that a single affricate (say, **ts*) should be reconstructed, and that the 'messy' correspondence patterns for the Guarani varieties are best understood as the result of dialect borrowing (see e.g., Meira & Drude 2015). Albeit cautiously, we agree with this revisionist position in the present paper, and recognize a single affricate, symbolized as **ts* (= early **c*), for PTG.[14] Note, however, that another, stronger affricate, such as **ʧ*, must still be recognized for PTG even if only as a non-contrastive element of the PTG phonological system, as a positional variant of **ts* after **i*. This will be noticeable in section **3.2** (table **5**), where the 1SG pronoun **iʧe* (and the Set II prefix **ʧe* derived from it) appear in one what are arguably 'surface' (or late- PTG) reconstructions. The somewhat uncertain status of the alveo-palatal affricate **ʧ* is shown by having it between parentheses in table **3**.

For the vowels of PTG, there is much less room for controversy in reconstruction and for different transcription practices. In the former domain, the sole divergence consists in either reconstructing a full set of nasal vowel phonemes, or in considering nasalization a property of specific morphemes, which may end up associated with word-level domains through harmony/spreading processes. For simplicity's sake we opt here for the second approach, yet hardly any aspect of our reconstructions depends crucially on either view. The bottom line is that nasalization is phonological, associated with the final (accented) vowel of some morphemes (and not others) and that it shows up allophonically elsewhere, depending on the language. Also, as mentioned above, the intrinsic nasality/orality of certain morphemes can trigger the appearance of specific contextual variants for certain consonants, notably for the stops and for the reflexes of **j*. In the domain of orthographic conventions, other than the usual tilde <~>, nasal vowels are often noted with a diaeresis <¨> in sources on some of the Bolivian TG languages, such as Pauserna and Sirionó, and with <ˆ> in Old Guarani. A nasalized [j̃] appears as <*j*>, <*j̃*>, <*ñ*> or <*nh*>. Other than that, the sole potentially problematic element is the high central vowel *ɨ*. Given its exotic character to speakers of most western Indo-European languages, the vowel is either transcribed in different ways, such as <*ï, y, ig*>, or it appears under-differentiated with one of the other members of the inventory, being represented as <*i*>, as <*e*> or as <*u*>. The latter three are particularly frequent in non-linguistic sources, such as some of the ethnographic descriptions used here for the compilation of kinship terminologies. In cases of uncertainty, we have checked these forms against sources produced by linguists in order to ascertain for the proper quality of the relevant segments.

[14] We say cautiously, first, because Schleicher's presentation of the affricate correspondences is problem-ridden, e.g., many of his correspondences are not supported by the examples amassed at the end of his work. Second, because an ongoing investigation by the first author of the present contribution will argue that two contrastive PTG segments are, in fact, necessary to account for the relevant correspondence patterns.

Table 4. PTG vowels

	Front	Central	Back
High	**i*	**ɨ*	**u*
Mid	**e*		**o*
Low		**a*	

Aside from minor contextual changes of vowel quality in some of the southern languages, such as the common rounding of **ɨ* in some rounding/labial contexts in Old Tupi (e.g., *-pupe* < **-pɨpe* 'in; with'; *-uʔuβ-a* 'arrow' < **-uʔɨp-a*), the most drastic vowel changes have affected a cluster of Amazonian TG languages of the Tocantins-Xingu region, though a lot remains to be established precisely on the relationships between these developments. Parakanã, Tocantins Asurini and Tapirapé have merged PTG **o* and **a*, both reflected as *a* (e.g., *maj* 'snake' < **moj* 'snake'; Almeida et al. 1983: 83), though the change was unconditioned in Tapirapé only, with some exceptional forms in the other languages being explainable by a combination of phonetic and grammatical conditions. Tapirapé is unique among TG languages for its shift **a* > *ã* (e.g., *kãro* 'eat (intr.)' < **karu* 'eat (intr.)') a context-free nasalization that preceded the merger of **o* and **a* (this relative chronology being indicated by the fact that the **a* that were later derived from **o* were not nasalized). These same northern TG languages retain then a single back rounded vowel, which now varies along [o ~ u], and sporadic or poorly understood shifts **o* > *u* and **u* > *o* also appear in other Amazonian TG languages like Tenetehára, Ka'apor and Wajãpi. A flip-flop rule exchanging PTG **i* (which changed to *ɨ*) and PTG **ɨ* (fronted to *i*) took place in the Sirionó language of Bolivia (Crowhurst 2002), in Warazu/Pauserna (Ramirez & França 2017: 21-22), and, apparently, also in Araweté, though this must still be established for the latter. Finally, some of these Amazonian languages, in particular Tocantins Asurini and Tenetehára, have lost the autosegmental/prosodic system of nasalization (and, in fact, have lost nasal vowels entirely). Tenetehára, in turn, innovated another contrastive vowel, a schwa *ə*, as a reflex of phonetically nasalized **ã* (e.g., *kuzə* < **kujã* 'woman'), while retaining oral variants **a* > *a*, thus resulting in the sole TG language with an inventory of seven vowels.

3.2 Inflectional Classes

Before a discussion of the inflectional classes that pervade the morphology of Tupi-Guarani languages, it is fitting to have a preliminary outline of the morphology and syntax of person cross-referencing (or argument indexing) in the languages of this family. PTG is currently reconstructed with four sets of person-markers, as shown in Table **5**.[15]

[15] Set II markers are described either as affixes or as clitics depending on the language or source consulted. We will use the labels *marker* or *affix* interchangeably without committing ourselves to any specific analysis, which are of no direct relevance to the contents of the following discussion. Finally, note that we have silently updated the forms of the person markers as they appear in Jensen (1998) in agreement with the conventions employed here (see section **3.1**). Thus, Jensen's *c* and *č* are here replaced by *ts* and *ʧ*, respectively.

Table 5. Proto-Tupi-Guarani Person Markers

	Set I (A, Sa)	Set II (O, So, Poss)	Set III (Coreferential)	Set IV (for 1A only)	PRO
1SG	**a-*	**ʧe-*	**wi-*	-	**iʧé*
1EXCL	**oro-*	**ore-*	**oro-*	-	**oré*
1INCL	**ja-*	**jane-*	**jere-*	-	**jané*
2SG	**ere-*	**ne-*	**e-*	**oro-*	**ené*
2PL	**pe-*	**pe-*	**peje-*	**opo-*	**pe(?)ẽ*
3	**o-*	**i-, *ts-, *t-*	**o-*	-	-

The occurrence of the bound markers (that is, Sets I, II, III, and IV) with verbs is conditioned by a series of factors, including transitivity, the distinction between independent and dependent clauses, whether a fronted/dislocated constituent appears in the clause or not, the existence or not of co-referentiality between arguments of embedded and main predicates and, for one-place (intransitive) predicates, certain lexical and semantic properties of the verb. In the most general terms — which suffice for the immediate concerns of the present paper — Set I, or Nominative, markers cross-reference the transitive subject and the subject of a (sub-) class of intransitive predicates in independent clauses. Set II, or Absolutive, markers cross-reference the complement of postpositions, the possessor of nouns, the single-argument of certain intransitive predicates and, in transitive verbs, the object whenever the subject is third person.[16] Set III markers are triggered under conditions of co-referentiality between two arguments; Set IV forms are *portmanteaux* used with transitive verbs whenever a first person subject acts either on a second person singular (**oro-*) or second person plural (**opo-*) object. Finally, the independent pronouns (to which Set II markers are obviously related) occur in situations where emphasis or contrast is necessary. From now on our focus will lie naturally on the Set II markers used with nouns for cross-referencing possessors, and the reader is referred to Jensen (1990, 1998) and Seki (1990) for detailed overviews of Tupi-Guarani cross-referencing.

Two broad inflectional classes are recognized for nouns, verbs, and postpositions in Tupi-Guarani languages. The formal grounds for establishing these classes concern the morphological behavior of stems in specific syntactic contexts. According to an influential approach to the relevant morpho-phonological patterns, anytime the direct object of a transitive verb, the single argument of certain monovalent predicates (often labelled stative or descriptive verbs), the possessor of a noun, or the complement of a postposition is expressed by either (i) a first or second person pronoun/prefix or (ii) an independent nominal phrase (NP), the complement-taking head (that is, the verb, noun or postposition) may be preceded by a 'linking prefix' whose form is **r-*.[17] Stems that do show this linking prefix are assigned to inflection

[16] That is, transitive verbs, which ordinarily have a single slot for the affixation of cross-referencing markers, are subject to a 'Person Hierarchy Effect' of the type 1/2 > 3 that conditions the selection of either Set I or Set II forms (see Rose 2015 for detailed discussion). We add the proviso "ordinarily" in this description because the Set II markers for third person have a rather special distribution, being able to occur preceded by Set I markers in the transitive verbs of PTG and in some daughter languages.

[17] Note that we are using 'complement' here as a cover term encompassing the object of transitive verbs, the subject of intransitive stative verbs, the complement of postpositions and the possessor of nouns. The use of this

Class II, while those that do not are said to belong to inflectional Class I. Table **6** below presents examples of forms illustrating, with PTG nouns, the morphological patterns responsible for the recognition of these two inflectional classes, as well as certain subclasses within each of these.

Table 6. Tupi-Guarani inflectional classes and subclasses for nouns

Inflection class	Inflectional sub-class	Third person	Adjacent possessor (1,2 PRO, NP)	Generic/non-possessed	Gloss
Class I	Class Ia	**i-ko*	**ko*	**ko*	'garden'
	Class Ib	**i-pɨ*	**pɨ*	**mɨ*	'foot'
Class II	Class IIa	**ts-et*	**r-et*	**t-et*	'name'
	Class IIb	**t-up*	**r-up*	**t-up*	'father'
	Class IIc	**ts-ok*	**r-ok*	**ok*	'house'
	Class IId	**ts-ape*	**r-ape*	**pe*	'path'

Two other points related to the morphological manifestation of this inflectional class divide are readily apparent from an inspection of the examples in Table **6** above. The first fact is that the linking morpheme **r-* occurs in paradigmatic opposition to two sets of markers: a third person prefix of form **ts-* or **t-*, and a 'generic possessor' prefix **t-*. This paradigmatic organization has prompted some researchers to consider all these markers to be part of one and the same system for the morphological expression of head-complement relations, usually under the label of 'relational markers' or 'relational morphemes. Under this analysis, **i-*, for Class I nouns, and **ts-* or **t-*, for Class II stems, would not be third person markers, but morphological indications that the complement is *not* adjacent to the head, while **r-* would occur instead in cases where such adjacency exists. The reader is referred to Jensen (1998) and Meira & Drude (2013) for some discussion of the issues with this interpretation. We retain here the analysis of **i-* (for Class I stems) and **ts-, *t-* (for Class II stems) as third person markers, and we use the more neutral term 'apophonic stem' for class II stems, given the alternation between **r-* and **ts-/*t-* characteristic of most of these elements.

The second point, now of direct relevance to the present paper, is that both classes (I and II) are distinguished from one another not only by the presence or absence of **r-*, but also by the exponence of the stem when a third person complement is present (or implied), and that further subclasses can be recognized within each class. Class I stems have third person **i-*, while Class II stems show either **ts-* or **t-*.[18] These different manifestations of the third person among Class II stems are the reasons for recognizing two inflectional subclasses, Class IIa (**ts-*) and Class IIb (**t-*), and two other classes are posited based on the 'generic possessor' forms: Class IIc, where no consonant is present in stem-initial position, and Class IId, characterized by the loss of the stem-initial vowel. There seems to be some patterning in the distribution of stems among classes, such as the predominance of vowel-initial stems in Class II, or the fact that kinship terms make up the bulk of Class IIb stems. As criteria for inflectional class

label for possessors is certainly non-standard, though we keep it here as a catch-all convenient label. Moreover, in the case of inalienable/dependent nouns a parallel with syntactic complements is certainly not off the mark.

[18] All members of Sub-class Ib have **p-* as their stem-initial consonant, which is nasalized in the generic or non-possessed form (thus **i-pɨ* 'his/her/its foot', **mɨ* 'somebody's foot; a foot'; see Jensen 1998, 1999).

membership, however, these phonological and semantic factors are of limited value, and the classes constitute true inflectional classes in the traditional sense of "classes of lexemes that go together in respect of some inflection" (Matthews 1991: 129-130).

An inevitable consequence of the limited amount of work done on the lexical reconstruction of PTG is that little is known about the composition of these PTG inflectional classes, that is, about the distribution of PTG etyma of the relevant lexical categories (verbs, nouns, postposition) in terms of their inflectional behavior. Most importantly, existing comparative studies on TG languages either remove the apophonic consonants that provide the critical evidence for class membership entirely from the relevant comparanda or fail to apply any consistent criterion. An example of the latter is Schleicher (1998), where **túß* 'father' (our **t-up*) is treated in the same way as **tĩ* 'nose', even though the initial coronal consonant of the former is apophonic, while in the latter it is not. Furthermore, other items with initial apophonic consonants, such as **uʔɨ́ß* 'arrow' or **upiʔá* 'egg', are treated differently from **túß* for no reason, and are reconstructed without these initial consonants (see Schleicher 1998: 349-350). Given this situation, one of our goals here is to contribute to an improved morphological and lexical reconstruction of PTG by advancing hypotheses on the inflectional class membership of each etymon proposed here.

4. Proto-Tupi-Guarani kinship terms: Etymologies

This section presents the relevant etymologies for the PTG kinship terminology system. The etymologies are separated in two blocks, one to consanguineal relations for each generation, and one for affine relations (needless to say, 'consanguineal' and 'affine' are here understood in an etic or "system-external" perspective). Each etymology is introduced by the meaning of the reconstructed etymon, characterized by equations in the case of classificatory terms, followed by its reconstructed form, information on its inflectional class, and the set of supporting cognates. A stem-initial apophonic coronal consonant (see **3.2**), which signals inflectional class membership for Class II stems, appears separated by a hyphen in the reconstructed etyma (e.g., **t-amõj* 'FF=MF'). [19] Cognates are presented following the abbreviation of the language name as given in Table **1**. Absence of any language from an etymology means that the reflex of the PTG root or compound in question has been lost in the language, with the meaning being expressed either by another PTG etymon that was subject to extension/shift or by a novel compound/derivative. Thus, for PTG **t-aʔɨ-ratɨ* 'daughter-in-law of male Ego' (SW♂), Mbyá Guaraní lacks a reflex, having instead an innovative compound *xe-ra'y ra'yxy*, which literally means "the mother of my son's son". We know that the former compound is in fact older, since it is synchronically opaque, as most TG languages have lost **t-atɨ* as an independent noun for 'wife' (W). It should be kept in mind that all such judgments about the lack of a given reflex should be taken with caution, as they depend on the existing documentation on the relevant languages, and one cannot exclude the possibility that further investigation, when feasible, may turn out to reveal the presence of the given reflex, either as a dialect-specific form, as a compound stem of limited distribution, or with a somewhat surprisingly shifted meaning.

[19] Following standard notation used in anthropological studies, we adopt the following abbreviations for the eight prime kin relations: M 'mother', F 'father', Z 'sister', B 'brother', D 'daughter', S 'son', W 'wife' and H 'husband'. An abbreviation FF should thus be read as one's "father's father". We additionally use the convention e 'elder' and y 'younger' before a sibling relation to express whether the referent is older or younger than the linking relative, such that FeB should be read as one's "father's elder brother". A final convention adopted is the use of the Venus symbol ♀ and the Mars symbol ♂ after an abbreviation to specify whether the Ego, i.e., the person to whom the kin relation pertains to, is a female or a male, respectively.

Each etymology contains, when this is deemed necessary, commentary on formal ('Phonology', 'Morphology') and semantic issues ('Semantics'), usually related to orthographic conventions and to developments in specific languages, including sporadic changes in form, lexical substitution (including the adoption of loanwords) or innovative morphological elaboration. Note that the cognates appearing in each etymology retain the transcription system or orthographic conventions employed in the original sources, standardizing only capitalization so that all terms are given in lower case. Interpretation of these conventions in terms of standard IPA symbols is relatively straightforward based on the discussion in section **3.1** above.

In the reconstruction of the inflectional class to which a given etymon belongs (see **3.2**) most problems arise in relation to the subclasses of Class II. Thus, while Class IIb nouns are mostly kinship terms, some languages, in specific cognate sets, inflect a cognate term in accordance to the Class IIa pattern. In these cases, if the distributional evidence does not favor one or the other reconstruction in an obvious manner, we have opted for reconstructing the term as Class IIa, based on comparative evidence for its basic status (see Meira & Drude 2013: 12-13). For Class I, it is significant that the kinship terms whose stems show an initial *p-* do not show any evidence, in the comparative material, for membership in Class Ib. In the absence of evidence for absolute/generic forms with initial *p* → *m*, the formal diagnosis of Sub-class Ib, we have reconstructed these etyma as belonging to Class I, without any specification for sub-class membership. We come back to this issue in section **5**.

Concerning the primary sources consulted for the reflex/cognate forms, we have relied both on anthropological works, such as ethnographies of individual Tupi-Guarani peoples, and on descriptive linguistic materials. Usually, the former are much more accurate and reliable as far as the semantics of kinship terms is concerned, as this usually constitutes the focus of ethnographic descriptions of kinship terminology systems. In contrast, most linguistic sources, unless directly concerned with the description of the lexical semantics of kinship terms, usually offer much less detailed and explicit accounts of the meaning of the lexical entries comprising this specialized semantic domain. Linguistic descriptions offer, however, more accurate information concerning the phonology and morphology of the relevant terms, and this is particularly true when the sources are descriptions of the phonology and/or morphology of the languages. We have thus relied on the relative strengths of both kinds of sources, placing greater trust in the semantic descriptions provided by ethnographic sources, yet relying on strictly linguistic descriptions for the formal phonological and morphological structure of kinship terms.

Generation G+2

FF=MF ****t-amõj*** Class IIa

ACH *djamo* : ANA *eramun* : AWT *tamõy* : CHR *-rãmɨi* : EME *-amɨn* : GUY *tamoĩ, -ramoĩ* : KAA *hamũi* : KAM *-ramỹj* : KAY *-ramĩy* : KGU *-ramõi* : KOK *-amui* : MGU *-r-amoĩ, tamoĩ* : OGU *Tamôî, cheramôî* : PAR *tamonia, -ramonia* : PAU *-ämäi* : PGU *tamói* : SIR *erãmẽy, erãmõy* : TAP *-amõj, xeramõja, tamõja* : TEH *-amonh* : TEN *-tamúi* : TUP *tamĩya, tamĩgnha* : WAJ *tamũ, e-lamũĩ*.

Phonology: Reconstruction of the vowel in the final syllable of the stem is relatively uncertain due to erratic correspondences that occur, perhaps unsurprisingly, in a nasal context. There are languages with a back rounded vowel *u/o* and others showing a form with the high central vowel *ɨ*, always with nasalization. Some languages show both forms, usually from distinct sources, such as Tapirapé *-ramyia* (Wagley & Galvão 1946) and *-ramõja* (Almeida et al. 1983: 26) and Kamayurá *ieramôi* (Galvão 1953) and

-ramỹj (Seki 2000: 392), or even from the same source, such as Sirionó *e-ramẽy ~ e-ramõy* (Schermair 1949: 428). The more plausible solution is to assume that a back rounded vowel **õ* or **ũ* is optionally, and possibly, gradiently, fronted in the context of the following palatal glide in some languages or lects, yielding inconsistent transcriptions. Note that this conclusion is supported by external evidence from Mawé and Awetí (see Meira & Drude 2015: 292). Word-final *-a* in the Parakanã, Old Tupi and Tapirapé reflexes can be excised as reflexes of the nominal suffix **-a* (Jensen 1998: 505-506; 1999: 148-149).

The Aché root *-djamo* implies a diachronic correspondence **t > dj* that calls for a proper explanation. Aché *dj* is usually a reflex of PTG **j* and the form *djamo* has been supposed to reflect a root *-amoj* 'ancestor' preceded by the third person prefix *i-* crystallized to the root (see Dietrich 2015 for both claims). If correct, this hypothesis entails the previous transposition of *-amoj* from Class II to Class I. The transposition of Class IIb nouns to Class I is attested in Paraguayan Guarani (Avañe'e), though in this language the apophonic consonant **t-* is kept as such (e.g., *itúva* 'su padre', De Canese 1983: 49).

For Anambé *eramun* 'pai do pai ou da mãe' (Arnaud & Galvão 1969: 4), both the segmentation *e-ramun*, and the interpretation of final <*n*> as standing for simple nasalization of the final vowel are supported by Julião (2005: 82).

Emerillon *-amɨɲ* 'grandfather' (Françoise Rose, p.c.) clearly belongs into this etymology. The form *tamutsi*, however, glossed as "grand-père" by Hurault & Frenay (1963: 143) is probably not cognate; in particular, there is no explanation for word-final *-tsi*. It is arguably related to Wajãpi *tamusi* "chef de village" (Grenand 1989: 415), which Grenand suggests is a loan from Wayana (Cariban). This is supported by the wide distribution of this form among Cariban languages, as in Wayana (*tamusi* 'vieux; chef'; Camargo & Tapinkili 2009: 119-120), but also in Apalai *tamuʃi* 'velho' (Koehn & Koehn 1995: 48), Kari'na *tamusi* 'old man, grandfather, god' (Courtz 2008: 379), and by the fact that both Emerillon and Wajãpi have borrowed other kinship terms from Cariban languages, most notably *-parɨ* 'grandchild' (*epalú* 'mon petit-enfant', in Hurault & Frenay 1963: 144). Sirionó *ámi*, attested in Holmberg (1950: 52-56), is most likely *-amɨ̃*, with a high central nasal vowel *ɨ̃* (see Gasparini & Dicarere Mendez 2015:34). The final monophthong is certainly a recent innovation in Sirionó, as shown by *-amẽy* 'viejo, anciano', recorded by Schermair (1957: 35).

Morphology: Languages from subgroups I, II, IV, V and VIII from the Rodrigues & Cabral (2002) classification have reflexes in Class IIa (that is, with third person forms **ts-*), while languages belonging to branches I, VII, III, IV have reflexes in Class IIb. References for each of these are as follows: Old Guarani (hybrid behavior, Class IIb or IIa; Montoya 1640:66); Parakanã (Class IIa; Silva 2003: 82); Araweté (Class IIa; Solano 2009: 100); Guarayu (Class IIa; Danielsen et al. 2019); Ka'apor (Class IIa; Kakumasu & Kakumasu 2007: 152); Mbyá (Dooley 1998: xxii); Old Tupi (Class IIb; Araújo 1686: 271); Tapirapé (Class IIb; Almeida et al. 1983: 26); Tenetehára (Guajajara variety) (Class IIb; Harrison & Harrison 2013: 140); Kamayurá (Class IIb; Seki 2000: 58).

Sources: ACH (Thompson 2019: 132); ANA (Arnaud & Galvão 1969: 4); AWT (Viveiros de Castro 1986: 394); CHR (Dietrich 1986: 327); GUY (Hoeller 1932: 235); KAA (Kakumasu & Kakumasu 2007: 78); KAM (Seki 2000: 392); KAY (Weiss 1985: 113); KGU (Wagley & Galvão 1946: 17); MGU (Dooley 1998: xxii); KOK (Vallejos & Amías 2015: 29, 194); OGU (Montoya 1639: 353v); PAR (Fausto 1995: 66); PAU (Ramirez et al. 2017: 58); PGU (Peralta & Osuna 1950: 189); SIR (Schermair 1949:

428); TAP (Almeida et al. 1983: 26); TEH (Peggion 1996: 66); TEN (Wagley & Galvão 1946: 17); TUP (VLB, I, 48); WAJ (Grenand 1989: 69).

FM=MM ****jarɨj ~ *arɨj*** Class I

ACH *djary* : AWT *-đari :* GUJ *-iari* : GUY *yarì, che yarì* : KAA *ihẽ ari* 'minha avó' : KAM *-jaryj* : KAY *-jarɨ̃j* : KGU *che-djarí* : MGU *-jarýj* : OGU *yarĭî, cheyarĭî* : PAR *-jaria* : PAU *-ári* : SIR *etyari, tyari* : TAP *xanyj* : TEN *-zarýi* : TUP *aryia, xe aryia* : WAJ *ɛ-yalɨi.*

Phonology: For Araweté, the <*đ*> in Viveiros de Castro (1986) stands for a palatal or alveo-palatal voiced affricate realization of *j* (see Santos 2009: 75). Medial **r > n* in Tapirapé results from nasal assimilation from the preceding vowel, given that **a > ã* in the language. Languages showing a monophthong reflecting the final vowel-glide sequence (or diphthong) plausibly show the effects of contextual assimilation **ɨi > *ii > i*. This would explain the cases of Pauserna, Sirionó and Guajá, but Guarayu is somewhat more problematic, as it retains the high central vowel <*ì*> = [ɨ]. For Sirionó and Pauserna, it is difficult to place this change in a relative chronology with the well-known 'flip-flop' rule involving **ɨ* and **i* (see Crowhurst 2002 and Ramirez et al. 2017 for discussion on these developments). Vocalic nasalization in Kayabí could result from contamination by the form for 'grandfather (FF, MF)'.

The status of root-initial **j-* is the main formal issue (see also the set for FZ). Aché, Araweté, Old Guarani, Guarayu, Wajãpi, Kamayurá, Mbyá, Tapirapé, Parakanã and Tenetehára show a reflex of PTG **j-* in root-initial position, while Old Tupi, Ka'apor, Sirionó and Pauserna do not. The former group has a much wider distribution, but the fact that both *j*-initial and *j*-less forms co-exist in the same languages, the first as a third-person possessive (e.g., Ka'apor *iari* 'avó dele' versus *ihẽ ari* 'minha avó'; Kakumasu & Kakumasu 2007: 78, 84) suggests that the forms with initial *j-* derive from an absorption of the third person prefix **j-* and generalization of this form to the rest of the paradigm. Given the wide distribution of *j*-initial forms, this would require multiple independent occurrences of this morphological reanalysis, a state of affairs that could have been prompted by the co-existence, already at the PTG level, of two allomorphs **arɨj ~ *jarɨj*. Also relevant is the fact that similar absorptions have taken place elsewhere in many TG languages, as in the well-known case of the verb **apo ~ *japo* 'to make, do'.

Sources: ACH (Thompson 2019: 132); AWT (Viveiros de Castro 1986: 394); GUJ (Cormier 2003: 59); GUY (Hoeller 1932: 283); KAA (Kakumasu & Kakumasu 2007: 152); KAM (Seki 2000: 392); KAY (Weiss 1985: 113); KGU (Watson 1944: 48); MGU (Dooley 1998: xlviii); OGU (Montoya 1639: 189); PAR (Fausto 1995: 66); PAU (Ramirez et al. 2017: 60); SIR (Schermair 1949: 428); TAP (Almeida et al. 1983: 86); TEN (Wagley & Galvão 1946: 17); TUP (Araújo 1686: 268); WAJ (Grenand 1989: 66).

Generation G+1

F ****t-up*** Class IIb

ANA *harú* : AWT *to* : EME *elu* : CHR *ché-ru, túu, tu* : GUY *che ru, tu* : KAA *ihẽ ru* : KAM *-rup* : KAY *rup* : KGU *che-rú* : MGU *xe-ru, tu* : OGU *tu.b* : PAR *towa* : PAU *t-ú, né-r-u* : PGU *che ru* : SIR *éru* : TAP *t-op* : TEH *uva* : TEN *he-rú* : TOC *-op, tówamo isé* : TUP *tûba, xe rûba* : WAJ *ɛ-l-u*.

Phonology: Both PTG and all reflex languages show the expected apophonic stem-initial consonant *t* ~ *r*, but in Araweté there is, in addition to the stem *to*, a possessed form with an unexpected vocalism: Araweté, *he-rɨ* (Viveiros de Castro 1986: 394). An explanation for this vocalic alternation is a matter for future research. For Kayabí, Weiss (2005: 109) notes, besides the 'relational' form *rup* 'father', the 'indefinite' form *tup* and a suppletive allomorph *-jup* used with the 1SG.III prefix *te-*. The origin of this latter allomorph is unclear. Finally, for Tenharim, Betts (2012: 267) notes that the vowel-initial stem *uva* is used even when unpossessed.

Morphology: That the reflex of this etymon belongs to Class IIb is explicitly indicated for Old Guarani by Montoya (1639:399), who notes *túba* 'eius pater' (see also Dooley 1998: cix for Mbyá). Also for Pauserna, where Ramirez et al. (2017: 96) note third person *t-ú* 'pai dele'.

Semantics: For Guarayu Hoeller (1932: 259) notes the extension to FB: "mein Vater; item: mein Onkel, Bruder meines Vaters". The Ka'apor reflex for ***t-up, -ru,*** seems no longer used for F, surviving only as a formative in descriptive formations or in teknonyms.

Sources: ANA (Arnaud & Galvão 1969: 4); AWT (Viveiros de Castro 1986: 394); EME (Hurault & Frenay 1963: 43); CHR (Dietrich 1986: 341); GUY (Hoeller 1932: 229, 259); KAA (Kakumasu & Kakumasu 2007: 78); KAM (Seki 2000: 392); KAY (Weiss 1985: 114); KGU (Wagley & Galvão 1946: 15); MGU (Dooley 1998: cix); OGU (Montoya 1639: 399); PAR (Fausto 19995: 66); PAU (Ramirez et al. 2017: 96); PGU (Dietrich et al. 2015: VIII); SIR (Holmberg 1950: 53); TAP (Almeida et al. 1983: 84); TEH (Betts 2012: 267); TEN (Wagley & Galvão 1946: 15); TOC (Cabral & Rodrigues 2003:169); TUP (Araújo 1686: 273); WAJ (Grenand 1989: 69).

FB ****t-up-ʔɨt*** Class IIb

KAM *-ruwyt* : KAY *ruʔwɨt* : KGU *che-ruwy* : MGU *-uvy* : OGU *tubĭ* : PGU *tuvĭ* : PAR *towyra* : TAP *-owyt* : TEH *-uvyra* : TEN *he-ruwyra.*

Comments: Among Tupi-Guarani languages, the root **-up* 'F' is either used for both F and FB (as in Old Tupi; see VLB II, 128; Araújo 1686: 273) or the meaning FB is conveyed by the root plus some additional morphological material. This is the case even in languages/dialects that have lost (or close to it) a reflex of **-up*, as in the Amapari variety of Wajãpi, where *papa* 'F' differs from *papa-miti* 'FB'. Other languages use a different suffix to derive FB from a reflex of **-up*, such as in Guajá where *tu* 'F' provides the root for *tu-na* 'FB' (Cormier 2003: 59). The situation of Araweté is less certain as to the identity of the suffix: Viveiros de Castro (1986: 394) gives *to dɨ̃* 'FB' which could be included in this set, but both the nasalization and quality of the vowel (see that **ɨ* > *i* in the language, as in **tutɨt* > *toti* 'MB') would remain unaccounted for. Solano (2009: 256), on the other hand, gives *r-uda* for 'uncle' (as in *he-r-uda* 'my uncle')). Although both recordings of the form are consistent with an initial base/root *t-u* 'F' (< **t-up* 'F'), the identity of the suffix is problematic. One possibility is that Guajá *-na* and Araweté *-da/-dɨ̃* are cognate, both reflecting PTG **-ran* 'imitative' (Jensen 1998: 511), so that FB would be rendered by an expression roughly meaning "like father; similar to father" (see that *-uda* 'uncle' is possibly [udã], since Solano (2009) considers the nasalization of final *-a*

in Araweté to be predictable and does not record it in phonological forms). Be that as it may, comparative analysis in Birchall et al. (2019: 89-90) provides support for the FB term including the additional derivational suffix, with reflexes of *-*ʔɨt* having not only an acceptable distribution (see below), but being found as well in parallel formations, for instance, for MZ (PTG *-*tsɨ-ʔɨt*).

The distribution of the reflexes of *t-up-*ʔɨt* is rather limited, to the point of raising issues about the reconstructability of this form. See, however, that forms are attested in languages that are not particularly close within the family. Attestation in Kamayurá and in other 'Core Tupi-Guarani' languages virtually guarantees reconstruction if the internal classification in Michael et al. (2015) is assumed as a working hypothesis. Even under the alternative, Rodrigues & Cabral (2002) subgrouping proposal, the etymon in question is supported by reflexes in four of the eight subgroups (I, IV, VI, VII).

Phonology. See that Kayabí *ruʔwɨt* is transparently related to *-rup* 'F' followed by *-ʔɨt* due to a well-known process of glottal metathesis (Souza 2004: 29-30).

Sources: KAM (Seki 2000: 392); KAY (Weiss 1985: 114); KGU (Wagley & Galvão 1946: 15); MGU (Dooley 1998: clxxiii); OGU (Montoya 1640: 323); PGU (Peralta & Osuna 1950: 153); PAR (Silva 2003: 129); TAP (Wagley & Galvão 1946: 15); TEH (Betts 2012: 267); TEN (Wagley & Galvão 1946: 15).

M ***tsɨ*** Class Ia

ANA *jene-hɨ* : AWT *hi* : *xe cy* : CHR *ché-sɨ, í-chɨ* : GUJ *-hy* ~ *-hi* : GUY *zì*, *che zì*, *ichì* : KAA *i-hy* : KAM *-y* : KAY *-ɨ* : KGU *che-sy* : MGU *chy* : OGU *çĭ* : PGU *che sy* : SIR *e-si* : PAU *tse-hi*, *ɨ-tsi* : SIR *esi* : TAP *-y* : TUP *cy* 'Mãy natural', WAJ *ɛ-ɨ*.

Comments: Reflexes of PTG *-*tsɨ* have become obsolete in Ka'apor (Kakumasu & Kakumasu 2007: 176 note that *i-hy* "não é usado hoje em dia"), where *-hy* is now essentially restricted to teknonyms, and in the Amapari variety of Wajãpi as well. In the former *-mãi* is used for M, while in the later it is *-mama*.

There is a widespread, vocative form, as in Old Tupi *aí* 'Minha mãy' (Araújo 1686: 268). Araújo (1686) notes that the first-person possessive meaning is expressed without the need of an explicit possessive prefix, which makes its vocative meaning clear. The alternative writing <*äí*> (Araújo 1686: 268) shows explicitly the presence of a medial glottal stop. See also OGU <*Haì*> 'madre' (Montoya 1639: 138). Whether this vocative form is reconstructible or not to PTG remains an open problem.

Sources: ANA (Julião 2005: 71); AWT (Viveiros de Castro 1986: 394); CHR (Dietrich 1986: 336); GUJ (Magalhães 2007: 152); GUY (Hoeller 1932: 340); KAA (Kakumasu & Kakumasu 2007: 176) : KAM (Seki 2000: 392); KAY (Weiss 1985: 114); KGU (Wagley & Galvão 1946: 12); MGU (Cadogan 1992: 39); OGU (Montoya 1639: 114); PGU (Dietrich et al. 2015: VIII); SIR (Schermair 1949: 427); PAU (Ramirez & França 2017: 27); SIR (Schermair 1949: 427); TAP (Almeida et al. 1983: 87); TUP (Araújo 1686: 268); WAJ (Grenand 1989: 66).

MZ ***tsɨ-ʔɨt*** Class Ia

CHR *che-sɨɨ* : GUY *zìir* : KAM *-y'yt* : KAY *ɨʔɨt* : KGU *che-syy* : MGU *xy'y* : OGU *cĩĩ* : PAR *-'yra* : PAU *hí-ʔi* : TEH *-yy* : TEN *he-iýra* : TUP *cigigra.*

Comments: For Old Tupi, the attested meaning is "Tia, irmã ou prima da mãy" (VLB, II, 127). For Old Guarani, the meaning given in Montoya (1640: 318) suggests that the form is used exclusively by men, which, for the moment at least, is considered an innovation in the language. While Kukama-Kukamilla has borrowed the Spanish term *mama* for M, the term for MZ is *mamakɨra* (Vallejos & Amías 2015: 123), including the diminutive marker *-kɨra*, a reflex of PTG **-kɨt* 'young, immature'. It preserves, thus, the system whereby the term for MZ is derived from the root for M.

Sources: CHR (Dietrich 1986: 336); GUY (Hoeller 1932: 341); KAM (Seki 2000: 392); KAY (Weiss 1985: 114); KGU (Wagley & Galvão 1946: 15); MGU (Dooley 1998: cxvii); OGU (Montoya 1640: 318); PAR (Fausto 1995: 66); PAU (Ramirez et al. 2017: 65); TEH (Peggion 1996: 66); TEN (Wagley & Galvão 1946: 15); TUP (VLB, II, 127).

MB ****tutɨt*** Class Ia

ACH *tuty* : ANA *etutɨ* : AWT *-toti* : CHR *che-túti* : GUY *tutìr* : KAA *-tutyr* : KAM *-tutyt* : KAY *-tutɨt* : KGU *che-tutý* : MGU *-tuty* : OGU *tutyr* : PAR *totyra* : PAU *-túti* : TAP *che-totyra* : TEH *-tutyr* : TEN *he-tutyra* : TOC *sé totýra* : TUP *tutîra, xe tutîra*.

Comments: Tapirapé *-totyra* (*-totyt* in Almeida et al. 1983: 86) is used for MB by female speakers only. The Tapirapé form given by Wagley & Galvão (1946) for male speakers is *che-chotyrangi*. Palatalization of the root-initial consonant could be a result of affective palatalization. This form is not attested in Almeida et al. (1983). The same restriction to female Ego is attested by Hoeller (1932: 264) for Guarayu. The reverse occurs in Kamayurá, as Galvão (1953: III) gives the term for male Ego only (but Seki 2000: 392 mentions no such restriction).

In Pauserna the bifurcation is lost and *-túti* means both MB and FB. An interesting pattern is described for both Old Tupi and Old Guarani, the earliest attested languages. In these languages the term is also applied for MBS and MBD, thus crossing generations. Araújo (1686: 273) has, for Old Tupi: "Tio irmão da mãy, ou primo da mãy, assi do varão, como da femea". However, he also adds that the term is applied to MBS and MBD ("utriusque sexus"). This is corroborated by Montoya (1639: 404v). The equation could be suggestive of an Omaha-like skewing, but the statements found in these early sources should be handled with care. In view of the independent attestation of *tutĭ raĭ* 'primohermano' (MBS) and *tutĭ rayĭ* 'primahermana' (Montoya 1640: 323-234), it seems likely that what Araújo and Montoya had in mind when mentioning the application of this term for cousins actually was their use in descriptive expressions of this kind, rather than a classificatory merger. Another equation commonly related to specific institutions is attested for Ka'apor, where *-tutyr* means both MB and WF, typically indicative of cross-cousin marriage (although the Ka'apor reflex of **-tutɨt* is mostly obsolete nowadays; Gustavo Godoy, p.c.).

Sources: ACH (Thompson 2019: 132); ANA (Arnaud & Galvão 1969: 4); AWT (Viveiros de Castro 1986: 394); CHR (Dietrich 1986: 341); GUY (Hoeller 1932: 264); KAA (Kakumasu & Kakumasu 2007: 78); KAM (Seki 2000: 392); KAY (Weiss 1985: 115); KGU (Watson 1944: 48); MGU (Dooley 1998: cvii); OGU (Montoya 1639: 404v); PAR (Fausto 1995: 66); PAU (Ramirez et al. 2017: 95); TAP (Wagley & Galvão 1946: 15); TEH (Peggion 1996: 66); TEN (Wagley & Galvão 1946: 15); TOC (Cabral & Rodrigues 2003: 244); TUP Araújo (1686: 273).

FZ **** jajtse*** Class Ia

AWT *đađe* : CHR *che-yéiche* : GUJ *yahɨ* : GUY *yaiche* : KAA *jaxe* : KAM *-jaje* : KAY *yaye* : KGU *che-djaiché* : MGU *-jaixe* : OGU *yaiché, che yaiché* : PAR *-jaje* : PAU *-átse* : TAP *-xãxe* : TEN *he-zaihé* : TEH *-jaji* : TOC *se-sasee* : TUP *aixé, xe aixe* : WAJ *ɛ-yayɛ.*

Comments: As in the set for FM=MM, there is the formal issue of the apparent existence of two allomorphs differing on the presence or absence of initial **j-*. Here as well, the two classical languages diverge, and in the same way: Old Tupi shows a form without initial *j-*, which is present in Old Guarani. Pauserna is also consistent in having *j*-less forms both in FM=MM and in FZ. Note that the range of distribution of the two formally distinct variants is different from the case of **-jarɨj* ~ **-arɨj*, as in the present case only two languages, Old Tupi and Pauserna, present the *j*-less variant. Until other developments are brought to bear on the issue, we will rely on the sheer distributional imbalance of the evidence and reconstruct **-jajtse* for this etymon.

Another formal issue concerns the medial consonant. Some languages show a reflex consistent with PTG **j* (Parakanã, Wajãpi, Kamayurá, Kayabí, Tapirapé and Tocantins Asurini), while the other set of languages show a reflex consistent with PTG **ts*(Old Tupi, Old Guarani, Guajá, Kaiowá, Chiriguano, Guarayu, Mbyá, Pauserna, Ka'apor and Tenetehára). The proper explanation for these reflexes involves the palatalizing effect of the medial **i* upon the following affricate consonant.

Semantics: The oldest sources offer precise meanings: Old Tupi "Tia, irmaã ou prima do pay (…) assi chama o varão, e a femea à irmaã, ou prima do seu pay" (Araújo 1686: 268), and Old Guarani: "tías, Hermanas de sus padres (dicenlo varones y mujeres)" (Montoya 1639: 187v). The term is also used to mean WM ♂ in Mbyá and Parakanã, an equation that is consistent with, if not indicative of, cross-cousin marriage.

Sources: AWT (Viveiros de Castro 1986: 394); CHR (Dietrich 1986: 347); GUJ (Cormier 2003: 59); GUY (Hoeller 1932:276); KAA (Balée 1984: 185); KAM (Seki 2000:392); KAY (Weiss 1985: 115); KGU (Wagley & Galvão 1946: 15); MGU (Dooley 1998: xlvii); OGU (Montoya 1639:187v); PAR (Fausto 1995: 66); PAU (Ramirez et al. 2017: 60); TAP (Almeida et al. 1983: 86); TEH (Peggion 1996: 66); TEN (Wagley & Galvão 1946: 15); TOC (Arnaud 1963: 116); TUP (Araújo 1686: 268); WAJ (Grenand 1989:75).

Generation G+0

B ♀ ****kiβit*** Class I

ACH *kywã* : ANA *-kɨwɨ* : AWT *čiwi* : CHR *che-kɨwɨ* : GUY *quìbìr* : KAA *i-xywyr, ihẽ kywyr* : KAM *-kywyt* : KAY *kɨwɨt* : KGU *che-kywý* : KOK *-kɨwɨra* : OGU *quĩbĩ.r* : PAR *-kywyra* : PAU *-kíwi* : PGU *che kyvy* : TAP *-kywyt* : TEN *hekiwyra* : TOC *sekywyra* : TUP *kybyra* : WAJ *ɛ-kɨwɨ.*

Phonology: On the vocalism in Tenetehára (Tembé) *-kiwyra* 'B', it seems to derive from a more general process of dissimilation. See also *ipy* 'base, beginning' (< PTG **-ɨpɨ*; in Boudin 1978: 77). Araweté was subject to **ɨ* > *i*, with later palatalization of **k*. The dorsal stop **k* was palatalized to [ʧ ~ ʃ] after *i* in Ka'apor. For Kokama there is an interesting case of a doublet of unclear origin: In addition to *-kɨwɨra*, which denotes the actual kinship relation between a female Ego and her brother (Vallejos & Amías 2015:

105), there is *-kiwi*, used by women in reference to men related to them via fictive kinship, such as fellow community members (Vallejos & Amías 2015: 102).

Semantics: Converging evidence from the classical languages, and from other, more recently attested languages (such as Wajãpi), suggests that the term was also extended to FBS and MZS. On Old Tupi, Araújo (1686: 269) gives the meaning as: "irmão uterino, ou primo da femea somente", and Montoya (1639: 331v), for Old Guarani, agrees on the extension to 'primos hermanos'. According to Arnaud (1963), Tocantins Asurini *-kywyra* 'eB' has lost the restriction to female Ego. Cabral & Rodrigues (2003: 113), however, gloss *-kywýt* as 'irmão da mulher'. Tenetehára (Tembé) *he-kiwyra* 'B' maintains the restriction to female Ego but seems to apply the term irrespective of the relative age of the named relative (Wagley & Galvão 1946: 12). The same pattern is attested in Parakanã and in Kokama.

Sources: ACH (Thompson 2019: 132); ANA (Julião 1993: 42); AWT (Viveiros de Castro 1986: 394); CHR (Dietrich 1986: 304); GUY (Hoeller 1932: 212); KAA (Godoy 2017); KAM (Seki 2000: 391); KAY (Weiss 1985: 115); KGU (Wagley & Galvão 1946: 12); KOK (Vallejos & Amías 2015: 105); OGU (Montoya 1639: 331v); PAR (Fausto 1995: 67); PAU (Ramirez et al. 2017: 78); PGU (Dietrich et al. 2015: VIII); TAP (Almeida et al. 1983: 82); TEN (Wagley & Galvão 1946: 12); TOC (Arnaud 1963: 114); TUP (Araújo 1686: 269); WAJ (Grenand 1989: 60).

Z ♂ ****t-enɨt*** Class IIb
ANA *erendira* : AWT *heni, he reni* : CHR *che-ríndɨ* : GUY *teindìr, che reindìr* : KAA *henyr, ihẽ rendyr* : KAM *iereinýt* : KAY *renɨt* : KGU *che-rendý* : OGU *teŷndĩ, chereŷndĩ* : PAR *tenyra* : PAU *-éiɲi* : PGU *che reindy* : TAP *-enyt* : TEH *-rendyr-* (♂/♀) : TEN *he-reinyra* : TOC *se-renyra* : TUP *tendyra, xe rendyra*.

Phonology: One formal issue with this etymology is the existence of two slightly different forms, one with a medial closing diphthong *-ei-* and the other without it. For Kamayurá, see that Galvão (1953: I) records a form with a medial diphthong (*iereinýt*, analyzable as *ie-reinýt* 'my sister'), agreeing with the Old Guarani and Guarayu cognates, while Seki (2000: 391) registers what looks like an innovative form *-renyt*.

Semantics: As in the case of B♀, the oldest sources suggest an extension to cousins as well but are not precise enough so as to distinguish specific genealogical positions (say FBD and FZD). Araújo (1686: 272) gives "irmaã ou prima do varão" for Old Tupi, and Montoya (1639: 376) agrees on the inclusion of 'cousin' in the meaning for the Old Guarani reflex. For Guarayu, Hoeller (1932: 242) notes an extension to male's 'sister' and 'niece', and in Hoeller (1932: 221) the meaning *younger* sister is presented.

Morphology: For Old Tupi, Guarayu, Parakanã and Old Guarani, reflexes are members of Class IIb, with third person forms with initial *t-*. For Tapirapé, Almeida et al. (1983: 25-26) gives this as a member of inflectional Class IIa, with Ø- (<**ts-*) third person marking.

Sources: ANA (Arnaud & Galvão 1969: 5); AWT (Viveiros de Castro 1986: 394); CHR (Dietrich 1986: 329); KAA (Godoy 2017); KAM (Galvão 1953: I); KAY (Weiss 1985: 115); KGU (Wagley & Galvão 1946: 12); GUY (Hoeller 1932: 221, 242); OGU (Montoya 1639: 376); PAR (Fausto 1995: 66); PAU (Ramirez et al. 2017: 61); PGU

(Dietrich et al. 2015: VIII); TAP (Almeida et al. 1983: 81); TEH (Peggion 1996: 66); TEN (Wagley & Galvão 1946: 12); TOC (Arnaud 1963: 114); TUP (Araújo 1686: 272).

eB♂ ***t-ɨket-ʔɨt*** Class IIb

ANA *erekiï* : AWT *hečiʼi* : CHR *che-rɨkéɨ* (♂/♀) : KAM *-ryke'yt* : KAY *rekiʔɨt* : KGU *che-rikeý* : MGU *xe ryke'y* : OGU *tĩqueĩra* : PAU *-iké-ʔi* : PGU *che ryke'y* : SIR *e-rekii* : TAP *-ykehyt* : TEH *-reky'yra* : TEN *he-rikiyra* : TOC *se-ryke'yra* : TUP *tigqueigra* : WAJ *ɛ-lɛkɨʔɨ.*

Comments: This set is related to the one below for eZ♀, both including a root/stem **t-ɨket* that could be described as meaning 'same-sex elder sibling'. This base is modified by **-ʔɨt* in the derivation of the form for eB♂, which seems to be the same formative used in deriving PTG **t-up-ʔɨt* 'FB' from **t-up* 'F', and PTG **-tsɨ-ɨt* 'MZ' from **-tsɨ* 'M'.

Phonology: The Aché form *key'y* 'eB=eZ' (Thompson 2019: 132) is difficult to reconcile with either PTG **t-ɨket-ʔɨt-a* 'eB ♂' or PTG **t-ɨket-a* 'eZ ♀', and, for this reason, is not included here. Further clarification of the complex historical phonology of Aché is still necessary. The reflexes in Anambé, Araweté, Kayabí and Tenharim derive from a metathesis involving the the vowel in the root **t-**ɨke**t* > Kayabí *-r**e**k**i**-ʔɨt* : Tenharim *-r**e**k**y**-'yra* : Anambé *-r**e**k**ï**-ï* : Araweté *h-**e**č**i**-i*.

Semantics: Note that Sirionó has systematically changed PTG *-**t-ɨket-ʔɨt* 'eB♂' and PTG **t-ɨßɨt* 'yB♂' (see below) by generalizing it to both male and female siblings, though retaining the relative age difference: *e-rekii* 'hermana mayor, hermano mayor', *e-ribi* 'hermana menor, hermano menor' (Schermair 1949: 428). The sources do not mention the sex of Ego restriction, so this may have been lost as well in the language.

Sources: ANA (Arnaud & Galvão 1969: 4); AWT (Viveiros de Castro 1986: 394); CHR (Dietrich 1986: 341); KAM (Seki 2000: 391); KAY (Weiss 1985: 115); KGU (Wagley & Galvão 1946: 12); MGU (Dietrich 2014: 204); OGU (Montoya 1639: 392-392v); PAU (Ramirez et al. 2017: 67); PGU (Dietrich et al. 2015: VIII); SIR (Schermair 1949: 428); TAP (Almeida et al. 1983: 88); TEH (Peggion 1996: 66); TEN (Wagley & Galvão 1946: 12); TOC (Arnaud 1963: 114); TUP (VLB, I, 14); WAJ (Grenand 1989: 60).

eZ ♀ ***t-ɨket*** Class IIb

ANA *eareká* : CHR *-rɨke* (♂/♀) : KAM *-ryket* : KAY *-rɨkiet* : KGU *-ruké* : MGU *xe ryke* : OGU *tĩque.r* : PAU *-íke* : PGU *che ryke* : TAP *-yket, che-rykera* : TEN *he-rikéra* : TOC *serykéra* : TUP *tigquera* : WAJ *-l-ɨkɛ*

Comments: This set seems to reflect an earlier, perhaps Pre-PTG root/stem **t-ɨket-* for 'same-sex sibling'. This etymon became specialized for eZ♀ while the derivative **t-ɨket-ʔɨt* came to express eB♂ only.

Phonology: Anambé *e-areká* derives via loss of final consonants and the change of PTG **-e* > *a*, both of which are entirely regular in the language (see the chapter 2 of Julião 1993). Kayabi *-rɨkiet* is tentatively placed in this set since (unattested) *-rɨset* is the expected reflex, given PTG **ki, *ke* > *si, se* in the language. This could be a loan from an unattested Kagwahiva source, given that PTG **ke* > *ki* in this dialect cluster.

Sources: ANA (Arnaud & Galvão 1969: 5); CHR (Dietrich 1986: 341); KAM (Seki 2000: 391); KAY (Weiss 1985: 115); KGU (Wagley & Galvão 1946: 12); MGU (Dietrich 2014: 204); OGU (Montoya 1639: 392); PAU (Ramirez et al. 2017: 67); PGU (Dietrich et al. 2015: VIII); TAP (Almeida et al. 1983: 88; Wagley & Galvão 1946: 12); TEN (Wagley & Galvão 1946: 12); TOC (Arnaud 1963: 114); TUP (VLB, I, 14); WAJ (Grenand 1989: 192).

yB ♂ ****t-iβit*** Class II

ACH *tywy* : ANA *erewi* : CHR *che-rɨ́wɨ* : KGU *che-riwý* : GUY *tìbìr, che rìbìr* : KAM *-rywyt* : KAY *rewiret* : MGU *xe ryvy* : OGU *tĩbĭ.r, cherĩbĭ* : PAR *tywyra* : PAU *-iwi, tse-r-íwi* : PGU *che ryvy* : SIR *e-ribi* : TAP *-ywyt, che-riwyra* : TEN *he-riwyra* : TOC *serywyra :* TUP *tybyra, xe rybyra*.

Sources: ACH (Thompson 2019: 132); ANA (Arnaud & Galvão 1969: 4); CHR (Dietrich 1986: 335); GUY (Hoeller 1932: 252); KAM (Seki 2000: 391); KAY (Weiss 1985: 115); KGU (Wagley & Galvão 1946: 12); MGU (Dietrich 2014: 204) OGU (Montoya 1639: 389); PAR (Fausto 1995: 66-67); PAU (Ramirez et al. 2017: 68); PGU (Dietrich et al. 2015: VIII); SIR (Schermair 1949: 428); TAP (Almeida et al. 1983: 88; Wagley & Galvão 1946: 12); TEN (Wagley & Galvão 1946:12); TOC (Arnaud 1963: 114): TUP (Araújo 1686: 272).

yZ ♀ ****kɨpi-ʔɨt***

ANA *kupuí* : AVC *txipykyga* : CHR *che-pɨ́kɨ* : GUY *quìpìir* : KAM *-kypy'yt* : KAY *kɨpiʔɨt* : KGU *che-kypyý* : MGU *kypy'y* : OGU *quĭpĭí* : PAR *pyky'yra* : PAU *-pikíʔi* : PGU *che kypy'y* : TAP *-kypyhyt* : TEN *he-kipiyra* : TOC *sepyky'yra* : TUP *pigquîgyra* : WAJ *ɛ-kɨpi-miti*.

Phonology: Inclusion of these comparanda in the same set seems to require a metathesis rule in order to account for two formally distinct sets: one whose forms point to PTG **-kɨpiʔɨt* (Wajãpi, Paraguayan Guarani, Tapirapé, Tenetehára, Guarayu, Kaiowá, Anambé, Old Guarani) and the other to **-pɨkɨʔɨt* (Tocantins Asurini, Parakanã, Pauserna, Avá-Canoeiro, Chiriguano, Old Tupi). The first will be here called 'the *kp*-set', and the latter, 'the *pk*-set', in reference to the onsets of the two initial syllables of the stem. Rodrigues (2007: 183) has pointed out the need for this metathesis development in relation to the Old Tupi form, which makes the *pk*-set the innovative one. The crucial comparanda here are external to Tupi-Guarani itself, such as Karitiana *kɨpeet* 'yz♀' (Storto 2019: 127) and Proto-Tupari **kɨpi* 'yz♀' (Nogueira et al. 2019: 42), which are consistent with the hypothesis that the *kp*-set is ancestral.

Morphology: Wajãpi *-miti* is a marker of attenuation used with both verbs and nouns. With the former it is felicitously glossed as 'a little' or 'a few', as in *a-ka'u miti* 'I drink a little' (Grenand 1989: 287). However, with nouns, it can either refer to a small quantity or to a younger individual, as in the case in question (see also *papa* 'my father', *papa-miti* 'my uncle (FB)' for a related but distinct semantic dimension, perhaps related to degrees of authority/respect in relation to Ego).

Sources: ANA (Arnaud & Galvão 1969: 5); AVC (Silva 2005: 40); CHR (Dietrich 1986: 325); GUY (Hoeller 1932: 213); KAM (Seki 2000: 390); KAY (Weiss 1985: 115); KGU (Wagley & Galvão 1946: 12); MGU (Dietrich 2014: 204); OGU (Montoya 1640: 321); PAR (Fausto 1995: 67); PAU (Ramirez et al. 2017: 88); PGU (Dietrich et

al. 2015: VIII); TAP (Almeida et al. 1983: 82); TEN (Wagley & Galvão 1946: 12); TOC (Arnaud 1963: 114); TUP (VLB, I, 14); WAJ (Grenand 1989: 74).

Generation G-1

S/BS ♂ ***t-aʔɨt*** Class IIb

ACH *ray* : ANA *eraï* : AWT *ta'i* : CHR *che-rái* : EME *elà'ùt* : GUJ *ta'ira* : GUY *taìr, che raìr* : KAA *ta'yr* : KAM *-ra'yt* : KAY *raʔɨt* : KGU *che-raý* : KOK *taɨra* : MGU *xera'y* : OGU *taĭ.r, cheraĭ* : PAR *ta'yra* : PAU *-áʔi* : PGU *che ra'y* : TAP *-ãhyt* : TEN *he-raýra* : TEH *-ra'yra* : TOC *sera'yra* : TUP *täyra, xe räyra* : WAJ *ɛ-l-aʔɨ*.

Semantics: The following languages use the same term for BS ♂ as for S ♂: Araweté, Chiriguano, Ka'apor, Kaiowá, Pauserna, Tenharim, Tenetehára and Old Tupi. These languages are spread across the phylogeny of the family, suggesting that this equation of kin relations reconstructs to PTG. In Tenharim, the reflex of this etymon is used for S, D and, likewise, for both BS and BD. The term *taɨrɨa* in Kokama for BS/ZS ♂ also appears to be a reflex of this cognate set with an additional *-ɨ* suffixed to the root and before the word-final *-a*. For Old Tupi, Araújo (1686: 271) notes the meaning "Filho natural do varão (…) significa também sobrinho filho de irmão, ou primo do varão".

Phonology: In a modern source on Guarayu, Danielsen et al. (2019) notes a glottal stop missed in the Hoeller (1932) transcription.

Sources: ACH (Thompson 2019: 132); ANA (Arnaud & Galvão 1969: 5); AWT (Viveiros de Castro 1986: 395); CHR (Dietrich 1986: 338); EME (Hurault & Frenay 1963: 144); GUJ (Cormier 2003: 59); GUY (Hoeller 1932: 234); KAA (Godoy 2017); KAM (Seki 2000: 392); KAY (Weiss 1985: 114); KGU (Wagley & Galvão 1946: 16); KOK (Vallejos & Amías 2015: 177); MGU (Dooley 1998: xxx); OGU (Montoya 1639: 351); PAR (Fausto 1995: 66-67); PAU (Ramirez et al. 2017: 57); PGU (Dietrich et al. 2015: VIII); TAP (Almeida et al. 1983: 79); TEN (Wagley & Galvão 1946: 16); TEH (Peggion 1996: 67); TOC (Arnaud 1963: 116); TUP (Araújo 1686: 271); WAJ (Grenand 1989: 59).

D/BD ♂***t-ajɨt*** Class IIb

ACH *radjy*: ANA *erayê*: AWT *haiyi, he raiyi* : CHR *táyɨ, che-ráyɨ* : EME *eladyút* : GUY *tayìr, che rayìr* : KAA *tajyr* : KAM *-rajyt* : KAY *raʔyɨt* : KGU *che-radjý* : MGU *xerajy* : OGU *taîĭ.r, cheraîĭ* : PAR *tajyra* : PAU *-áðɨ* : TAP *-ãxyt* : TEN *he-razýra* : TOC *serasyra* : TUP *taiyra, xe raiyra* : WAJ *ɛ-l-ayɨ*.

Semantics: For Ka'apor, Kaiowá, Chiriguano, Tapirapé, Tenetehára, Old Tupi and Pauserna also BD ♂. For Old Tupi, Araújo (1686: 271) has the semantics: "Filha do varão, ou sobrinha do varão, filha, ou de seu irmão, ou de seu primo". Montoya (1639:353) also describes "hija del varón y sobrina" for Old Guarani.

Phonology: See the Kayabí form with the glottal cluster. Origin of these clusters is still unclear, and, for this reason, the glottal stop is not reconstructed to the PTG etymon.

Morphology: Sources on the classical languages, such as Old Guarani, are explicit about reflexes belonging to class IIb. Montoya (1639: 353), for instance, notes *Taîĭ* 'eius filia'.

Sources: ACH (Thompson 2019: 132); ANA (Arnaud & Galvão 1969: 5); AWT (Viveiros de Castro 1986: 395); CHR (Dietrich 1986: 338); EME (Hurault & Frenay 1963: 144); GUY (Hoeller 1932: 218, 238); KAA (Godoy 2017); KAM (Seki 2000: 392); KAY (Weiss 1985: 114); KGU (Wagley & Galvão 1946: 16); MGU (Dooley 1998: xx); OGU (Montoya 1639: 353); PAR (Fausto 1995: 66-67); PAU (Ramirez et al. 2017: 58); TAP (Almeida et al. 1983: 80); TEN (Wagley & Galvão 1946: 16); TOC (Arnaud 1963: 116); TUP (Araújo 1686: 271); WAJ (Grenand 1989:59).

C = ZC♀ ****memɨt*** Class Ia

ACH *memby* : ANA *memy* : AWT *memi* : CHR *che-mémbɨ* : GUJ *mɨmɨrə* : GUY *membìr* : KAA *imemyr* : KAM *-memy-* : KGU *che-membý* : KOK *memɨra* : OGU *membĭ.r* : PAR *-memyra* : PAU *-mémi* : PGU *che memby* : TAP *che-memyra* : TEN *he-memýra* : TOC *sememyra* : TUP *membyra* : WAJ *ɛ-mɛmɨ.*

Semantics: Kamayurá, like most TG languages, uses the compound forms *-memɨrake* for S♀ and *-memɨkujã* for D♀ for specifying the sex of C♀ (Seki 2000: 392). For Old Guarani, Montoya (1639: 220) contrasts, on the one hand, *Chemêmbĭ cuñã* 'Mi hija y sobrina, hija de hermano, o hermana', and, on the other hand, *Chemêmbĭ raĭcé* 'hijo varón'. Note in Montoya (1639) the observation on the extension of the term to BD, BS, ZS, ZD. For Old Tupi, Araújo (1686: 269) gives *Membyraycé* as 'Sobrinho da fêmea, filho macho de sua irmaã' and *Membycunhã* 'Sobrinha da femea, se he filha de qualquer de suas irmãs'. The same observations apply to Guarayu in Hoeller (1932: 125). Kayabí has lost a reflex of PTG **memɨt* for the meaning C♀ (Weiss 1985: 116), though it appears in *memytaty* 'nora' ('daughter-in-law'; Weiss 2005: 60), a synchronically opaque form that reflects a compound of **-memɨt* and **t-atɨ* 'wife', literally meaning "child's wife". The etymon is here reconstructed as a classificatory term that co-lexifies C and ZC♀, as this is attested in Old Tupi, Old Guarani, Parakanã, Tocantins Asurini, Ka'apor, Tapirapé, Guarayu, Guajá and Araweté.

Sources: ACH (Thompson 2019: 132); ANA (Julião 2005: 66); AWT (Viveiros de Castro 1986: 395); CHR (Dietrich 1986: 312); GUJ (Cormier 2003: 59); GUY (Hoeller 1932: 125); KAA (Godoy 2017); KAM (Seki 2000: 392); KGU (Wagley & Galvão 1946: 16); KOK (Vallejos & Amías 2015: 131); OGU (Montoya 1639: 219v); PAR (Fausto 1995: 66-67); PAU (Ramirez et al. 2017: 57); PGU (Dietrich et al. 2015: VIII); TAP (Wagley & Galvão 1946: 16); TEN (Wagley & Galvão 1946: 16); TOC (Arnaud 1963: 116); TUP (Araújo 1686: 269); WAJ (Grenand 1989: 59).

BC ♀ ****pẽŋ*** Class I

AWT *pe'ɨ̃* : GUJ *ipenčiá* : GUY *chẽ pẽ, pẽ* : KAA *ipen* : KAM *-peŋ* : KAY *-peg̃* : KGU *che-pẽ* : MGU *xe pẽ* : OGU *pẽng* : PAR *-pega* : TAP *che-penga* : TEN *he-péng* : TOC *sepenga* : TUP *pênga* : WAJ *ɛ-pẽ.*

Semantics: Reconstructed simply as meaning 'nephew', without further specification, in Mello (2000:187). Most reflex forms, however, are restricted to female Ego, despite differences in the precise genealogical positions denoted: the Mbyá reflex is only used for ZC♀, the Tenetehára reflex only for BD♀, while Ka'apor and Guajá agree in having reflexes meaning BS♀. In Ka'apor, however, the term is also used for WM ♂. In Parakanã and Wajãpi, the term is also used for DH♀, possibly reflecting a system of cross-cousin marriage. See that the semantics in Old Tupi is even more specific, referring to the *first-born* son of a female Ego's brother (Araújo 1686: 270).

Morphology: In many descriptions of TG languages, roots/stems whose first consonant is *p-* are automatically placed in inflectional class Ib, under the assumption that a form resulting from the processual replacement *p-* → *m-* codes a 'generic possessor' for nouns. For PTG ***pẽŋ***, however, there is no evidence for such a generic form with initial nasalization in any of the daughter languages, and, as a consequence, the PTG etymon is simply assigned to Class I. See that in the practical orthography employed for Parakanã <*g*> stands for a nasal velar stop /ŋ/.

Sources: AWT (Viveiros de Castro 1986: 396); GUJ (Cormier 2003: 59); GUY (Hoeller 1932: 167); KAA (Godoy 2017); KAM (Seki 2000: 392); KAY (Weiss 2005: 84); KGU (Wagley & Galvão 1946: 16); MGU (Dooley 1998: lxxxvii); OGU (Montoya 1639: 268); PAR (Fausto 1995: 67); TAP (Wagley & Galvão 1946: 16); TEN (Wagley & Galvão 1946: 16); TOC (Arnaud 1963: 116); TUP (Araújo 1686: 270); WAJ (Grenand 1989: 67).

Generation G-2

CC ♀ ***t-emiarirõ*** Class IIa
AWT *hẽmɨ̀daɗɨ̀do* : CHR *che-remirĩ̃ro* : GUY *temiarïrö* : KAM *ieremiariró* : KAY *remiarirũ* : KGU *che-ramianinó* : KOK *rimiariru* : MGU *temiarirõ* : OGU *temîarîrô* : PAR *temiariroa* : TAP *che-rimianiró* : TEN *he-remiriró* : TOC *seremiarirôa* : TUP *temïarirõ, xe remïarirõ*.

Phonology: Reflexes showing **r* > *n* in a nasal stem such as **-t-emiarirõ*, as in Tapirapé and Kaiowá, are trivial. For Kamayurá, Seki (2000: 392) clarifies the nasal quality of the final vowel: <*-remiarirõ*>, not indicated in Galvão (1953).

Semantics: Kokama additionally specifies granddaughters with *kunia* 'woman' following the term. Tapirapé refers to CS ♀ only, with additional term *rimieninó* used for CD ♀. The Tenetehára term is used for SS ♀ and DS ♀/♂.

Morphology: For Old Guarani, Montoya (1639: 378) gives *Temiarŷrô´* 'nieto de la muger, varon y hembra', and indicates that it is a Class IIa noun, with his characteristic abbreviation 'h.gu.'. The necessary evidence from other languages is not always available, and, for the time being, PTG **-t-emiarirõ* is reconstructed to Class IIa.

Sources: AWT (Viveiros de Castro 1986: 397); CHR (Dietrich 1986: 330); GUY (Hoeller 1932: 244); KAM (Galvão 1953: IV); KAY (Weiss 1985: 113); KGU (Watson 194: 46); KOK (Vallejos & Amías 2015: 173); OGU (Montoya 1640: 322); MGU (Dietrich 2014: 204); PAR (Fausto 1995: 67); TAP (Wagley & Galvão 1946: 17); TEN (Wagley & Galvão 1946: 17); TOC (Arnaud 1963: 118); TUP (Araújo 1686: 271).

CC♂ ***t-em(i/i)m(i/i)nõ*** Class IIa
ACH *mino* : AWT *hããmõnõ* : CHR *che-remomĩno* : KAM *ieremyminó* : KAY *remɨminũ* : KGU *che-ramianinó* : MGU *-amymino* : OGU *temŷmŷnô´* : PAR *temominoa* : TAP *che-rumuminó* : TEH *-ymyminoa* : TEN *he-remiminó* : TOC *seremominôa* : TUP *temiminõ, xe remiminõ*.

Phonology: The main formal issue with this etymon concerns the qualities of the two medial vowels. Given the uncertainty in the attested reflexes, which shift between *i*, *ɨ* and even *u*, these segments have not been reconstructed with any specific quality. See that for some languages, notably Old Tupi and Kamayurá, different sources report diverging qualities for these medial vowels. For Old Tupi one has <*Tigmiminõ*>, with *ɨ* = <*ig*> in the first syllable (VLB, II, 49), and also <*Temiminõ*> in the Araújo (1686) *Catecismo*. For Kamayurá, while Galvão (1953) gives <*ieremyminó*>, Seki (2000: 392) notes, again, a final nasal vowel, but also gives different vowel qualities for the medial syllables: <*remimynõ*>. Mbyá *a* reflecting **e* is surprising, but could be an effect of contamination with *-amoĩ* 'grandfather'.

Semantics: The Kaiowá term is used for CC without a sex-based distinction. The Tenetehára term is used for SS ♂ and SD ♀/♂ and DD ♀/♂.

Morphology: We will assign **t-emiminõ* tentatively to sub-class IIa, in agreement with the evidence from Old Guarani (1639:378)

Sources: ACH (Thompson 2019: 133); AWT (Viveiros de Castro 1986: 397); CHR (Dietrich 1986: 330); KAM (Galvão 1953: IV); KAY (Weiss 1985: 113); KGU (Wagley & Galvão 1946: 17-18); MGU (Dooley 1998: xxii): OGU (Montoya 1639: 378); PAR (Fausto 1995: 67); TAP (Wagley & Galvão 1946: 18); TEH (Betts 2012: 281); TEN (Wagley & Galvão 1946: 18); TOC (Arnaud 1963: 118); TUP (Araújo 1686: 272).

Affines

W ***t-atɨ*** Class II

AWT *memitati* (SW) : KAM *-ra'ytaty* (SW), *-memytaty* (SW), *-ratyup* (WF) : KAY *ratɨup* (WF) : MGU *-atyu* (WF) : OGU *tatĭú* (WF) : PAR *taty'a* : TAP *-ãty* : TOC *hatý* 'esposa dele'.

Comments: Rodrigues (1998) proposed **-atɨ* as the PTG etymon for 'wife', even though it is retained only in Tocantins Asurini, Parakanã and Tapirapé as the main, independent root for W. In all other languages, reflexes of this etymon appear in synchronically opaque compounds referring to affine relatives, used by both male and female Ego. For the meaning W these languages have innovated expressions involving a causative-comitative derivative of the verb **-eko/-iko* 'to be', that is **-er(o)-eko* 'to have' (lit. "to make be with oneself"). Rodrigues (1998: 37, 39) considers the possibility that these descriptive formations could be actually fairly old, but the fully transparent nature of these derivatives, compared to the occurrence of **t-atɨ* in no longer transparent formations in almost every TG language speaks in favor of an older provenance for the latter, and its replacement by formations such as Old Tupi <*Temireco*> 'Molher. Uxor' (VLB, II, 40).

Sources: AWT (Viveiros de Castro 1986: 399); KAM (Seki 2000: 393); KAY (Weiss 1985: 117); MGU (Dooley 1998: xxvii); OGU (Montoya 1640: 322); PAR (Fausto 1995: 67); TAP (Almeida et al. 1983:80); TOC (Cabral & Rodrigues 2003: 56).

H ***mẽn*** Class I
CHR *chẽ-me* : EME *emɛn* : KAM *iemen* : KAY *men* : KGU *che-mẽ* : KOK *mena* : GUY *mẽ ~ mẽr* : MGU *-me* : OGU *mẽ.n* : PAR *-mena* : PAU *-me* : PGU *che ména* : TAP *-men* : TEN *he-mén* : TOC *-mén* : TUP *ména* : WAJ *ɛ-mɛ̃*.

Comments: This is one of the most well-supported sets, having ample distribution and being clearly of PTG provenance. The diachronic correspondence **n* > *r* in Guarayu, already noted in the correspondences in Lemle (1971:111), where the split **n* > ∅, *r* remains unexplained, is likely related to the association between (word-level) accent and nasalization in TG languages. While PTG ****-mẽn*** is accented both in PTG and in prosodically conservative languages, in languages like Guarayu, which have shifted the accent one syllable to the left, the accent falls on the possessive prefix, and the nasalization is shifted as well (e.g., Chiriguano *chẽ-me* 'my husband'; Dietrich 1986: 311). Since nasalization of the final syllable is not independently specified in the nucleus and the coda, final **n* was oralized to *r* when accent, and nasality, was retracted. Note that this change is attested elsewhere in the language, as in *amar* 'der Regen' (Hoeller 1932: 13) < **aman* 'rain'.

Sources: CHR (Dietrich 1986: 311); EME (Hurault & Frenay 1963: 144); KAM (Galvão 1953: 2); KAY (Weiss 1985: 117); KGU (Watson 1944: 48); KOK (Vallejos & Amías (2015: 132); GUY (Hoeller 1932: 124); MGU (Cadogan 1992: 94); OGU (Montoya 1639: 217v); PAR (Fausto 1995: 67); PAU (Ramirez et al. 2017: 74); PGU (Dietrich et al. 2015: IX); TAP (Almeida et al. 1983: 83); TEN (Wagley & Galvão 1946: 14); TOC (Cabral & Rodrigues 2003: 134); TUP (Araújo 1686: 269); WAJ (Grenand 1989: 57).

ZH♂ ****t-oßajat*** Class IIb
ACH *wadja* : CHR *che-rowáya* : GUY *tobayar, che robayar* : KAM *ierovaiát* : KGU *che-rowadjá* : MGU *t-ovaja* : OGU *tobayâ* : PAU *-uwáða* : PGU *che rovaja* : TUP *tobaiâra, xe robaiâra*.

WB ****t-ajro-ʔɨt*** Class IIb
AWT *tado'i, he rado'i* : KAM *-rairo'yt* : KAY *-aira'yt* : PAR *-airo'yra* : TEN *ta'ĭ-ru-wĭr* : WAJ *-t-ailɔ.*

Comments: These two sets are discussed together because they are plausibly related by replacement/obsolescence processes, and because they raise issues of both a semantic and distributional nature. These are discussed here for the first time, but not necessarily resolved.

In distributional terms, both etymologies are restricted to a subset of TG languages plus Kamayurá. If the Michael et al. (2015) internal classification is assumed, and Kamayurá is assigned a place as a coordinate branch of the rest of the TG family ('Nuclear Tupi-Guarani') as part of a basal split from PTG, it is in principle plausible to propose that both **t-oßajat* and **t-ajro-ʔɨt* can be reconstructed for PTG. This leaves unresolved, however, the question of the meaning of these etyma, and the problem of semantic reconstruction is closely tied to the distribution of the attested meanings in daughter TG languages.

There are two broad generalizations: First, the set of languages showing reflexes of **t-oßajat* in reference to an affine relative is almost complementary to the set of languages showing **t-ajro-ʔɨt* (we come back to the sole exception below). The former seems to be almost entirely restricted to southern TG languages, while the latter is

restricted to northern or 'amazonian' TG languages. Second, while **t-ajro-ʔɨt* is attested only in the northern languages and always with a meaning similar to WB, reflexes of **t-oßajat* have a more general meaning similar to 'enemy', 'contrary', even in languages of the northern group (that is, with the meaning 'enemy', reflexes of **t-oßajat* have a much wider distribution in the family). Indeed, although the matter will not be further pursued here, **t-oßajat* has been analyzed, under a widely cited account, as composed of **-t-oßa-* 'face', metaphorically extended as meaning 'opposite side', and **-jar-a* 'owner(s), lord(s)'.

Be that as it may, evidence for the generalizations above is as follows. For the two classical languages, we have nearly opposite situations as far as the breadth of classification in the relevant forms is concerned. About the Old Guarani form, Montoya (1640: 323) says that "Dizen todos a sus cuñados, y cuñadas", which implies a very general use paralleling that of Spanish *cuñado(a)*. For Old Tupi, the *Vocabulário na Língua Brasílica* gives <*Tobajara*> as meaning 'Cunhado de homẽ, marido de irmã ou prima' (VLB, I, 87), that is: ZH♂, while Araújo's *Catecismo* gives <*Tobaiâra*> as 'Cunhado de varão, o irmão ou primo de sua mulher', that is, WB. However, in both Old Tupi sources the same form is also given with the more general meaning 'Contrarios. hostis' (VLB, I, 81; Araújo 1686: 273).

Other southern TG languages are closer to Old Guarani than to Old Tupi in having a reflex of **t-oßajat* that is more general: in Kaiowá it means both WB and HB, while in Chiriguano it means both WB and DH. The same applies to Mbyá (Dietrich 2014: 205), to Paraguayan Guarani and to Pauserna (Ramirez et al. 2017: 97). For Guarayu, Hoeller (1932: 257) notes 'mein Schwager, meine Schwägerin' as the meaning for <*Tobayar*>. Aché *wadja*, which is plausibly a member of this set, has the extended meaning WB=WZ=BW=ZH=HB=HZ.

The oddball language that features in both etymologies is Kamayurá, which is also special given its place within the family, at least according to the Michael et al. (2015) classification. Kamayurá agrees with Old Tupi (in the *Vocabulário na Língua Brasílica*) in using *ie-rovaiát* for ZH♂ only. Kamayurá uses for WB the form *-rairo'yt* (Seki 2000: 393). The latter form suggests a root *-rairo,* followed by the same **-ʔɨt* found elsewhere, as in FB, and has cognates in Parakanã *-airo'yra* 'cunhado' (Silva 2003: 79), Araweté *h-ado'i* (Viveiros de Castro 1986: 398), Tenharim *-aira'yra* 'woman says this to husband's son-in-law' (Betts 2012: 25), Kayabí *-aira'yt* 'cunhado do homem (irmão da esposa, ou marido da irmã)' (Weiss 2005: 4) and Wajãpi *-t-ailɔ* 'Beau-frére. Fils de la soeur du père. Fils du frère de la mère. Frère de l'épouse' (*l-ailɔʔɨ*). (Grenand 1989: 116). Another possible cognate is Tenetehára (Tembé) <*Ta'ĭ-ru-wĭr*> 'marido da irmã' (male Ego), given in Boudin (1978: 239) as if it was a derivative of <*Ta'ĭr*> 'son' (male Ego) (Boudin 1978: 238; see that the medial *-w-* is probably a simple transitional glide). All these languages, it is important to note, also show reflexes of **t-oßajat,* but with a meaning close to 'enemy': Tenharim *-ovajar* 'killer' (Betts 2012: 199), Kayabí *-owajat* 'outro lado, outra metade', 'inimigo, não parente' (Weiss 2005: 81) and Wajãpi *-ɔwaya* 'affronter', *-ɔwaya-kɔ̃* 'adversaire, ennemi' (Grenand 1989: 324).

Two hypotheses to account for this situation are advanced here: The first, if simpler one, assigns to PTG the state observed in Kamayurá, with **t-oßajat* 'HZ♂' and **t-ajro-ʔɨt* 'WB'. As in Kamayurá, **t-oßajat* also meant 'enemy' (on Kamayurá see *owajat* 'consogro, inimigo'; Seki (2000: 463)). Later, in some southern TG languages **t-oßajat* 'HZ♂' was semantically extended to refer to other affine genealogical positions. A second hypothesis would have **t-oßajat* meaning only 'enemy' or 'member of adversary group or faction', and **t-ajro-ʔɨt* was the original affine kinship

term, perhaps restricted to WB. At the level of some intermediate proto-language that yielded some TG subgroups, perhaps at the level of the Southern branch of Michael et al. (2015), **t-oßajat* was generalized as a term for affines, perhaps as a result of marriage relations (sister exchange) among politically adversary groups. The idea that **t-ajro-ʔit* is an original and older term for affine relatives is also suggested by the occurrence of other affine terms, such as Old Tupi <*Taycê*> 'Parente da geração, ou nação da femea' (Araújo 1686: 271) and <*Taixò*> 'Sogra do varão' (Araújo 1686: 271), which could point to an older word family sharing a formative **t-aj-* that was somehow involved in reference to affine relatives. The matter clearly deserves further investigation.

Sources: ACH (Thompson 2019: 133); AWT (Viveiros de Castro 1986: 398) ; CHR (Dietrich 1986: 333); GUY (Hoeller 1932: 257); KAY (Weiss 2005: 4); KAM (Galvão 1953: II); KGU (Watson 1944: 48); MGU (Dietrich 2014: 205); OGU (Montoya 1640: 323); PAR (Silva 2003: 79); PAU (Ramirez et al. 2017: 97); PGU (Dietrich et al. 2015: IX); TEN (Boudin 1978: 239); TUP (Araújo 1686: 273); WAJ (Grenand 1989: 116).

HZ = BW♀ ****-ukeʔi*** Class Ia

CHR *se-ukéi* : KAM *-uke'i* : KAY *ukiʔi* : KGU *che-rukeí* : KOK *-uki* : OGU *cheuqueý* : PAR *-oke'i* : TAP *che-okei* : TEN *he-ukeí* : TOC *-oke'ia* : TUP *ukëí, xe ukëí*

Semantics: The equation HZ=BW reconstructed for PTG is not uniformly retained as the meaning of the reflexes of **-ukeʔi.* Kokama, Old Guarani, Parakanã, Tapirapé and Tocantins Asurini have HZ = BW (though, for Tocantins Asurini, Cabral & Rodrigues (2003: 168) register only BW). Note that for Old Guarani, Montoya (1640: 324) gives only BW in the *Catecismo*, but in the *Tesoro* we have "cuñada, dize la muger a la hermana de su marido, y a las mugeres de sus hermanos" (Montoya 1639: 406v), that is, both HZ and BW. The case of Old Tupi is similar, as in the *Vocabulario na Língua Brasilica*, our main lexical source on the language, *Uqueî* is simply glossed as "Cunhada de molher", but Araújo (1686: 273-274) offers a more precise gloss noting BW as the core meaning. Kamayurá and Chiriguano, however, are two languages that have HZ only, while Araweté classifies HZ and BW together using a different form *hado'i* instead (Viveiros de Castro 1986: 397-398). Mbyá uses *t-ovaja* (WB) for HZ as well.

A kinship system consistent, or conducive, to the PTG equation HZ = BW is one where men reciprocate each other by offering their respective sisters as wives (cf. Lévi-Strauss 1969), as this is the scenario required for a female Ego to have her husband's sister (HZ) equated with the wife of her brother (BW).

Morphology: There seems to be good evidence for the reconstruction of **-ukeʔi* as a Class I noun (TUP, OGU, TAP and TEN agree on this). In Kaiowá, however, the reflex form belongs to Class II, as shown by the 1SG possessive *che-rukeí*.

Phonology: As in eZ ♀ the Kayabí form is included here tentatively, and for the same reasons: the expected reflex for PTG **ke* in Kayabí is *se*, not *ki*. Since PTG **ke* > *ki* seems to be a regular development in Kagwahiva (see Lemle 1971:113-114) it is possible that the Kayabí form in question is a Kagwahiva loan, despite the absence of an attested source form.

Sources: CHR (Dietrich 1986: 342); KAM (Seki 2000: 393); KAY (Weiss 1985: 117); KGU (Watson 1944: 48); KOK (Vallejos & Amías 2015: 225); OGU (Restivo 1722:

202); PAR (Fausto 1995: 67; Silva 2003: 128); TAP (Wagley & Galvão 1946: 14); TEN (Wagley & Galvão 1946: 14); TOC (Cabral & Rodrigues 2003: 168); TUP (Araújo 1686: 273-274).

WF ***t-ati-up*** Class II
AWT *-ati* (?) : KAM *-ratyup* : KAY *ratɨup* : MGU *xe-ratyu* : OGU *tatĭú* : PAR *tatyhowa* : PAU *-ati* (?) TAP *che-rangty-owa* : TEN *he-ratyú* : TOC *sé ratýhówa* : TUP *tatüûba, xeratüûba*.

Comments: Ka'apor has no reflex of this etymon, showing, instead, an extension of **-tutɨt* MB, which is indicative of cross-cousin marriage (where MB = WF). Both Pauserna and Araweté show a form *-ati*, given simply as 'sogro' in Solano (2009: 436) for the latter, and as *-ati, tse-r-áti* 'meu sogro' (Ramirez et al. 2017: 60) for Pauserna. The inclusion of these two forms in this set is not entirely certain.

Sources: AWT (Solano 2009: 436); KAM (Seki 2000: 393); KAY (Weiss 1985: 117); MGU (Dooley 1998: xxvii); OGU (Montoya 1640: 322); PAR (Fausto 1995: 67); PAU (Ramirez et al. 2017: 60); TAP (Wagley & Galvão 1946: 15); TEN (Wagley & Galvão 1946: 15); TOC (Cabral & Rodrigues 2003: 57); TUP (Araújo 1686: 271).

WM ***t-ajtso*** Class IIa
AWT *hačo* : CHR *che-ráicho* : KAM *-raijo* : KAY *royo* : MGU *xe-raixo* : OGU *taichó* : PAU *-ótso* : TEN *he-raihó;* TUP *taixò, xe raixò*.

Comments: Montoya (1639: 352v) notes a third person *h-*, hence, that the Old Guarani reflex belongs to the inflectional class IIa. The reflex in Pauserna is also a IIa noun (Ramirez et al. 2017: 86). Kayabí *royo* shows the re-syllabification of medial **j* as a syllable onset, following the regular development of **ts* > *Ø,* and regressive vowel harmony **a* > *o /_Co*. A similar harmony development took place in Pauserna.

Guarayu uses a single form *tobayar, che robayar* for all affinal relatives of generation G+0 and G+1 (Hoeller 1932:225). The Tapirapé form *-chiranchai* WM in Wagley & Galvão (1946: 15) does not belong into this set and is of unknown origin. Tocantins Asurini has innovated a descriptive formation *sé ratyhýa* 'minha sogra' (Cabral & Rodrigues 2003: 57), literally 'wife's mother', which is parallel to the descriptive formations for HF and HM.

Sources: AWT (Viveiros de Castro 1986: 397); CHR (Dietrich 1986: 327) KAM (Seki 2000: 393); KAY (Weiss 1985: 117); MGU (Dooley 1998: xix); OGU (Montoya 1639: 352v); PAU (Ramirez et al. 2017: 86); TEN (Wagley & Galvão 1946: 15); TUP (Araújo 1686: 271).

HF ****mẽn-up*** Class ia
CHR *che-méndu* : KAM *-menup* : KAY *menup* : KGU *che-mendúa* : MGU *meru* : OGU *mẽndú.b* : TAP *che-menowa* : TEN *he-men-ú* : TOC *se-menowa* : TUP *mendûb.*

Morphology: The fact that the terms for HF and HM are compounds (descriptive terms) was noticed by some of the first colonial descriptions of Tupi-Guarani languages. Araújo, in the second edition of his Old Tupi *Catecismo* notes: "*Mendûba,* sogro da femea, ut xe mendûba, pro xe mena rûba, quod est, Pay de meu marido" (Araújo 1686: 270). Similar observations are found in Montoya (1639: 221) for Old Guarani *mẽndu(b)*

'father-in-law' (female Ego): "Suegro dize la muger. Chemêndúba El padre de mi marido".

Mbyá *meru* 'suegro (de mujer)' (Cadogán 1992: 94) shows the effects of some secondary development. Either the compound was derived later in Mbyá itself or predicted *mendu* was modified by a folk-etymological association with *t-u, r-u* 'father'. A similar development took place in the form for HM, modified by analogy to M (see discussion below).

Kaiowá *-mendúa* is hard to explain, as it seems to contain a reflex of the 'argument' marker **-a* but lacks the root-final **-p*, which is predicted to occur, in lenited form, in Guaranian forms where **-a* has been incorporated (e.g., Paraguayan Guarani *-ʔava* 'hair' < **-ʔap*; *tuva* 'father' < **-t-up*; cf. Dooley 1991: 14). Ka'apor has no reflex of **mẽn-up*, but shows a similar, innovative formation *sawa'e pái* 'husband's father' (Kakumasu & Kakumasu 2007: 83). Guarayu uses a single form *tobayar, che robayar* for all affinal relatives of generation G+0 and G+1 (Hoeller 1932: 225).

Sources: CHR (Dietrich 1986: 312); KAM (Seki 2000: 393); KAY (Weiss 1985: 117); KGU (Watson 1944: 48); MGU (Cadogán 1992: 94); OGU (Montoya 1639: 221); TAP (Wagley & Galvão 1946: 16); TEN (Wagley & Galvão 1946: 16); TOC (Arnaud 1963: 116); TUP (Araújo 1686: 270).

HM ****mẽn-tsɨ*** Class Ia
CHR *che-méndɨ* : KAM *-meny* : KAY *menɨ* : KGU *che-mensý* : MGU *mechy* : OGU *mẽndĩ* : TAP *meny* : TOC *sé menýa* : TUP *mendy*.

Comments: The most noteworthy formal issue with this etymon, a straightforward descriptive compound of **mẽn* H and **tsɨ* M, is the existence of reflexes that do not show any effects of the nasalization **-ts- → *n* in the context of a preceding nasal(ized) vowel, supposedly a process active at the PTG level (Jensen 1998: 608). Thus, the existence of forms such as Mbyá *mechy* and Kaiowá *che-mensý* suggest either that these compounds were recently innovated in these languages (as most if not all TG languages do not have a synchronically active reflex of the putative PTG rule **ts → *n*), or that the medial fricatives were restored via analogy with the forms for 'mother'. Both languages show the effects of the fricative nasalization rule in their reflexes of PTG **mo-tso* 'to send' (Mbyá *mondo* 'mandar, enviar', Cadogan 1992: 99; Kaiowá *-mondo* 'mandar', Taylor 1984: 11), a fact which is at least consistent with the previous existence of (unattested) **mendy* HM, which was later changed via analogy. Note that both nasalized and non-nasalized forms are attested for Old Guarani in Restivo's *Vocabulario* (1722: 544) as <*chemeçĩ l. mẽndĩ*>

Both Guarayu and Ka'apor lack cognates in this set. While Guarayu has extended *tobayar, che robayar* for all affinal relatives of generation G+0 and G+1 (Hoeller 1932: 225), Ka'apor shows an innovative formation *sawa'e mãi* 'husband's mother' (Kakumasu & Kakumasu 2007: 83). Araweté has generalized *hačo* WM (Viveiros de Castro 1986: 392) to mean HM as well.

Sources: CHR (Dietrich 1986: 312); KAM (Seki 2000: 393); KAY (Weiss 1985: 117); KGU (Wagley & Galvão 1946: 15); MGU (Cadogan 1992: 94); OGU (Montoya 1639: 221); TAP (Almeida et al. 1983: 83); TOC (Cabral & Rodrigues 2003: 134); TUP (Araújo 1686: 270).

SW♂ ***t-aʔɨt-t-atɨ*** Class IIb
AWT *ta'itati* : CHR *che-rái-táti* : KAM *-ra'ytaty* : OGU *taĭratĭ* : TEN *he-rai-taty* : TUP *täyraty, xe räyraty*.

Comments: The most interesting formal issue with this form is the coexistence of both absolute (**t-atɨ*) and relational (**r-atɨ*) forms of the compound head. These are also attested as variants in one and the same language, as in Old Tupi, for which Araújo (1686: 271) notes that <*Täytaty*> is "o mesmo que *Täyraty*". The same observation is offered by Montoya (1639: 352v-353) on Old Guarani *Taĭratĭ* and *Taĭtatĭ*. Arriving at a clearer picture of this phenomenon is a task for future, detailed research on the status of the so-called 'relational morpheme' in PTG morphology. Kaiowá has a form *che-wãchá* for SW♂ and DH♂ in Watson (1944: 48) that lacks cognates elsewhere (though it is somewhat similar to *-rowadjá* WB). Mbyá has an innovative expression *xe-ra'y ra'yxy*, lit. "the mother of my son's son" (Dietrich 2014: 205). Anambé has an innovative compound *-ray-merikó* (*haraymerikó* in Arnaud & Galvão 1969: 5).

Sources: AWT (Viveiros de Castro 1986: 399); CHR (Dietrich 1986: 312, 328); KAM (Seki 2000: 393); OGU (Montoya 1639: 352v); TEN (Wagley & Galvão 1946: 17); TUP (Araújo 1686: 271).

SW♀ ****memɨt-t-atɨ*** Class Ia
AWT *memitati* : CHR *che-mémbɨ-táti* : KAM *-memytaty* : KAY *memɨtatɨ* (♀) : OGU *mêmbĭratĭ* : PAR *-memytaty'a* : TAP *che-memytanty* : TEN *he-memi-taty*; TUP *membyraty, xe membyraty*.

Comments: This is a clear descriptive compound of **memɨt* S♀ and **t-atɨ* W. As with SW♂, both absolute (**t-atɨ*) and relational (**r-atɨ*) forms of the compound head are attested, even in one and the same language, as in Old Tupi, for which Araújo (1686: 269) comments that *Membytaty* is "o mesmo que *Membyraty*".

Sources: AWT (Viveiros de Castro 1986: 399); CHR (Dietrich 1986: 312, 328); KAM (Seki 2000: 393); KAY (Weiss 1985: 116); OGU (Montoya 1640: 320); PAR (Fausto 1995: 66, 67); TAP (Wagley & Galvão 1946: 17); TEN (Wagley & Galvão 1946: 17); TUP (Araújo 1686: 269).

DH♂ ****t-ajɨt-ßẽn*** Class IIa
ACH *djywẽ* : AWT : *haiyime* : KAM *-rajywen* : KAY *raʔyɨwen* : MGU *xe rajy mẽ* : OGU *tayĭmênâ* : PAR *tajywena* : TEN *he-raiwén* : TUP *taiymêna, xe raiymêna*.

Comments: Chiriguano uses *che-rowáya*, the same form for WB (see Dietrich 1986: 333). Kaiowá has a form *che-wãchá* for SW♂ and DH♂ (Watson 1944: 48) that lacks cognates elsewhere, unless it could be related to the set of PTG **t-oßajat-a*. This is unlikely, though, not only for the unexplained nasalization in *che-wãchá*, but because Kaiowá has a *bona fide* reflex of PTG **t-oßajat-a* in the form *che-rowadjá* WB (Watson 1944: 48).

Phonology: This form is very interesting for instantiating a seldom discussed alternation of *fortis* (nasal stop) ~ *lenis* (oral fricative) that can be reconstructed for PTG. Rodrigues & Dietrich (1997: 278) mentions this alternation for PTG **n* ~ **r* in forms like **-nupã* ~ **-rupã* 'to hit', the latter variant being found in compounds. PTG **t-ajɨt-*

ßẽn-a is a descriptive compound literally meaning ‘man’s daughter’s husband’, where **-ßẽn* is the lenited, compound form of **-mẽn* ‘husband’. The two forms seem to have been retained as variants in the early attested languages, notably Old Tupi, for which Araújo (1686: 271) notes: “ut xeraiymêna, vel xeraiybêna”.

Sources: ACH (Thompson 2019: 133); AWT (Viveiros de Castro 1986: 399); KAM (Seki 2000: 393); KAY (Weiss 1985: 116); MGU (Dietrich 2014: 205); OGU (Montoya 1640: 322); PAR (Fausto 1995: 67); TEN (Wagley & Galvão 1946: 17); TUP (Araújo 1686: 271).

DH♀ ****peũm*** Class Ia
CHR *che-pẽu* : KAM *iepeúm* : KAY *peum* : KGU *che-peú* : OGU *peû* : PAU *-peo* : TAP *che-peumi* : TEN *i-peum* : TUP *peuma* : WAJ *ɛ-pɛ̃.*

Comments: Limitations in the distribution of this cognate set may be due to gaps in the existing documentation, as otherwise closely related languages (Wajãpi and Emerillon; Mbyá and Kaiowá) differ in that only one of them contributes a witness to the etymology.

Phonology: For Old Tupi, Araújo (1686: 270) indicates explicitly the presence of hiatus in the transcription <*Pëûma*>. Though Old Tupi orthographic conventions do not differentiate between hiatus and a [vʔv] sequence, we can be somewhat sure that a medial glottal stop was not present in the etymon, as the other languages offer no positive evidence for this (*pace* Mello 2000: 187, who reconstructed **-peʔum*). This also applies to Chiriguano, but not to Pauserna, where regular penultimate accentuation shows that the final vocoid cluster is parsed as a tautosyllabic diphthong (*tsé-peo*; Ramirez et al. 2017: 88). In Wajãpi, PTG **pẽŋ* and **peũm* fell together as *-pɛ̃*. For **pẽŋ* this is a straightforward consequence of the loss of final consonants, but for **peũm* one would predict **-peũ* as a Wajãpi reflex. See, however, that some varieties of Wajãpi were subject to accentual retraction, so that intermediate **-pẽu* can be plausibly reconstructed, and, from this, final *-u* could be interpreted as a consonant and then dropped. This does not eliminate all problems, though, as it is still unclear whether final approximants behaved like consonants as opposed to part of falling diphthongs. The final vowel in the Tapirapé form is probably a phonetic effect (cf. *-peom* ‘genro’; Almeida et al. 1983: 84). Other TG languages, for instance, Avá-Canoeiro, somewhat closely related to Tapirapé under most existing classificatory proposals, also inserts optional ‘echo’ vowels after final consonants (see Borges 2006: 94).

Semantics: Chiriguano *che-pẽu* colexifies DH♀ = HB.

Morphology: In most descriptions of the TG inflectional class system, roots/stems whose first consonant is *p-* are usually assigned to Class Ib, meaning that a ‘generic possessor’ form showing a change *p* → *m* is available. For the reflexes of PTG **peũm*, however, we could not find any evidence in the daughter languages for the existence of a putative generic form ***meum*. We have opted, in cases such as this, to assign the relevant etymon to Class Ia.

Sources: CHR (Dietrich 1986: 320); KAM (Galvão 1953: 2); KAY (Weiss 1985: 117); KGU (Watson 1944: 48); OGU (Montoya 1640: 320); PAU (Ramirez et al. 2017: 88);

TAP (Wagley & Galvão 1946: 17); TEN (Harrison & Harrison 2013: 67); TUP (VLB, I, 148); WAJ (Grenand 1989: 61).

5. Issues in the reconstruction of cross-cousin and certain cross-niece/nephew terms

We are unable to identify distinct etyma that clearly reconstruct to PTG as a reference to parallel cousins exclusively, i.e., to the children of one's mother's sisters and one's father's brothers, suggesting that these relations are referred to with the same terms as a sibling of the same relative age and sex. In a comparison of kinship systems across the family, Birchall et al. (2019: 91) found that sibling terms are used to reference parallel cousins in 19 of the 24 languages sampled, attested for members of all major branches of the subfamily, suggesting that this colexification pattern reconstructs to PTG. Cross-cousins, i.e., the children of one's mother's brothers and one's father's sisters, are treated with terms distinct from those used to refer to siblings/parallel cousins. These terms often show an interesting overlap with terms for cross-nieces/nephews, either as colexifications in individual languages or as semantic differences in comparative sets. The nature of these semantic issues, as well as some formal difficulties with these terms, constitute some of the open problems in the reconstruction of PTG kinship terminology, and are discussed below.

For ZD ♂ a form close to **jetipet* could be tentatively proposed on the basis of cognates such as Araweté *đìpe* (Viveiros de Castro 1986: 396), Old Tupi *Ietipêra* (Araújo 1686: 269), Old Guarani *Yetipé* (Montoya 1640: 319), Guarayu *che ichiper* (Hoeller 1932: 89), Ka'apor *jyxyper* (Godoy 2017), Kaiowá *che-atipé* (Watson 1944: 48), Mbyá *jaxipe* (Dooley 1998: xlviii) and Tenetehára *he-ratipéra* (Wagley & Galvão 1946: 17). In formal terms, however, this set has a series of issues with the vocalism and the medial consonant of the two initial syllables. Based on the vocalism, three sets of forms can be recognized: *eCi-* (in Old Tupi and Old Guarani), *aCi-* (Kaiowá, Mbyá and Tenetehára) and *iCi-* (Guarayu). In terms of the medial consonant, there is a correspondence between Old Tupi, Old Guarani, Tenetehára, Kaiowá *t* : Mbyá and Ka'apor *ʧ* <x> : Araweté *ʤ*. See that Araweté is also divergent in lacking a correspondent for the root/stem-initial syllable. Further work on the historical phonology of the individual languages, and the possibility of using these and other developments to segregate inherited and loan strata in their respective vocabularies, is necessary before a more definite statement on this set can be made.

In semantic terms there are uncertainties too. For Old Guarani, Montoya (1640: 319) gives the meaning 'Sobrina (dize el varon) hija de su hermana, y prima, hija de su tia', which expresses an interesting cross-generational equation involving ZD♂ and 'cousin', but the latter cannot be made more precise since Montoya (1640) does not specify which 'aunt' serves as the intermediate link with Ego. Araújo (1686: 269) is equally vague for Old Tupi, noting that *Ietipêra* means ZD♂ ("sobrinha do varão, filha de sua irmãa") and also includes reference to a female cousin ("filha de sua tia"), without any specification as to whether it is MZ or FZ that is involved as the intermediate link. Even more divergent languages such as Araweté retain the same basic meaning ZD♂ (Viveiros de Castro 1986: 396). For Kaiowá the gloss in Watson (1944: 48) is simply "sobrinha, diz o homem", identical to Mbyá "filha da irmã (ego masculino)" in Dooley (1998: xlviii). It is possible, therefore, that a form similar to **jetipet* colexified both ZD♂ and some cousin category, and that the classification could find its rationale in that both genealogical positions constituted potential spouses for a male Ego, that is, a preferential marriage system that included both cross-cousin and avuncular marriage.

More difficult — yet potentially more significant for the reconstruction of PTG kinship as a system — is the case of the putative etymon for 'cross-nephew of male Ego' (ZS♂), whose form can be tentatively approximated as **-ɨt* or **-ri(ʔ)ɨt*. Witnesses for this set are Araweté *yi'i, he yi'i* (Viveiros de Castro 1986: 396); Kamayurá *ieýt* (Galvão 1953: III, IV), Kaiowá *che-riý*

(Wagley & Galvão 1946: 16); Old Guarani *Yĭra* (Montoya 1640: 319); Tenetehára *he-riýra* (Wagley & Galvão 1946:16); Old Tupi *Iíra, xeriíra* (Anchieta 1595: 14) and Parakanã *-'yra* (Fausto 1995: 66). That the medial vowel in the Old Tupi form is in fact *ɨ* is shown in the VLB, where we find *Yigra, xeriigra* 'meu sobrinho' (where <*ig*> = *ɨ*; VLB, II, 119). Part of the formal difficulties with this set may be related to an apparently dual behavior of this stem in terms of inflectional classes. It seems to have an initial *i-* in the third person (a Class I feature), while showing an apophonic/linking consonant *r-* when possessed (the diagnostic feature of Class II stems). This 'anomaly' is noted by Anchieta (1595: 14), who notes that: "*Iíra* sobrinho, & eius sobrinho, serue o i por relatiuo, mas preposto o nome, ou pro nome toma, *r*, vt, *xeriíra*". Perhaps due to analogical levelling, some languages (like Araweté and Kamayurá) seem to have lost the bound allomorph showing *r-* (cf. Araweté *he yi'i*, Kamayurá *ieýt*, both with 1SG possessive prefixes).

Semantically there are difficulties too, parallel to those seen above for the tentative set for **jetipet*. For some of the languages the relevant forms apply only to G-1 non-lineal relatives, usually to nephews but in some cases to nieces as well. Kamayurá *ieýt* refers to the nephew of a man (eZS♂ and yZS♂; Galvão 1953: III, IV), just like Tenetehára (Tembé) *he-riýra*, which includes nephews (ZS♂) only (Wagley & Galvão 1946: 16). In Mbyá *xe ri'y* classifies both nephews (ZS♂) and nieces (ZD♂) of a male Ego (Dietrich 2014: 203). In Parakanã, however, *-'yra* is not used for either nephews or nieces, but only for a senior female cross-cousin of a male Ego, that is, for MBeD♂ and FZeD♂ (see Fausto 1995: 66). In both Old Guarani and Old Tupi, however, despite imprecisions in the descriptions of the relevant meanings, a cross-generational classification that parallels that of **jetipet* is observed. Montoya (1640: 319) notes for *Yĭra* the meaning 'nephew (ZS)' and 'cousin' ('sobrino, y primo, hijo de su hermana, ò de su tia'). For Old Tupi, Araújo (1686: 274) gives *Yra* as meaning 'nephew (ZS)' but also 'cousin, son of aunt' and 'cousin, son of father's brother (FBS) "sobrinho filho da irmaã do varão, he também o primo filho da tia, ou do tio irmão do pay do varão". Thus, while **jetipet* always has a female referent, the reflexes of **-ɨt ~ *-ri(ʔ)ɨt* include both males (Old Tupi, Old Guarani) and females (Parakanã). Finally, note that, although the root allomorphy in PTG **-ɨt ~ *-ri(ʔ)ɨt* must still be properly understood, external comparanda from other branches of the Tupian family, such as Mundurukú *-ʔít* 'son (female Ego)' (Gomes 2006: 240), Wayoró *-kut* 'child, sperm' (Nogueira 2019: 55); Karitiana *-ʔet* 'son (female ego)' (Storto 1999: 14), make it plausible to suppose that the shorter allomorph **-(ʔ)ɨt* is in fact etymological.

The potentially greater significance of **-(ʔ)ɨt* for the reconstruction of PTG kinship relates to the hypothesis that this is, in fact, the same element that appears in forms such as FB and MZ as modifying elements **t-up-ʔɨt* FB and **tsɨ-ʔɨt* MZ. Although the formal similarity to the compound element **-ʔɨt* is, indeed, suggestive, it is much more difficult to arrive at a sensible characterization of the semantic contribution of **-(ʔ)ɨt*. As its meaning is somewhat associated with 'cousin' and 'nephew/niece', it could play a role in the derivation of forms for FB from a root for F and for MZ from a root for M. Perhaps the meaning 'non-lineal relative' could be ascribed to it, which would also make sense for the inclusion of **t-ajro-ʔɨt* 'WB' as well within the same word family.

Both terms discussed in this section, which share the feature of classifying cousins with nieces and nephews, are also both restricted to a male Ego. This latter feature is also shared with two other terms, **t-aʔɨt* S♂ and **t-ajɨt* D♂, which, in turn, are also candidates for deriving ultimately from compounds having **-ʔɨt* as member (this is further supported by the meanings of the likely cognates in non-TG Tupian languages noted above).

6. Summary and discussion.

The reconstructed forms for the kin terms in Section **4** highlight a number of typological patterns of the kinship system in Proto-Tupi-Guarani. The system reconstructed above is discussed in the present section in terms of the typology of kinship systems proposed in Murdock (1970).[20]

The PTG terminology for Ego's grandparental generation (G+2) instantiates what Murdock (1970: 166) called a "bisexual pattern", the most cross-linguistically common system in his sample. This consists of a simple system featuring only two terms that distinguish the sex of the referent, without mention to whether they are maternal or paternal grandparents, in our case: **(j)arɨj* 'grandmother (FM=MM)' and **t-amõj* 'grandfather (FF=MF)'

In the generation of Ego's parents and their siblings (G+1), the terms show a bifurcate merging pattern, the most common worldwide pattern for father/uncle terms and the second most common for mother/aunt terms in Murdock (1970). Bifurcate merging is characterized by the presence of a single term that refers to both one's mother and one's mother's sisters, and another term used for one's father and one's father's brothers. PTG **-tsɨ* was used for both M and MZ, with an additional derivational affix **-ʔɨt* attached to this root for MZ. Likewise, we have reconstructed the PTG root **t-up* for both F and FB, with an additional derivational affix **-ʔɨt* attached to this root for FB. As noted in the preceding section, the precise meaning of **-ʔɨt* requires further investigation. In agreement with the bifurcate merging pattern, independent roots were used in reference to the remaining genealogical positions on each side (paternal and maternal): **-jajtse* 'father's sister (FZ)' and **tutɨt* 'mother's brother (MB)'.

In Ego's own generation (G+0), it is possible to reconstruct both a sex-based and a relative age-based distinction in the PTG terminological system, with six distinct kin terms identified. A sex-based distinction is found with respect to the sex of Ego, where a male distinguishes between **t-ɨket-ʔɨt* 'elder brother (eB♂)' and **t-ɨβɨt-* 'younger brother (yB♂)' but does not distinguish the relative age of his sisters, with both his older and younger sisters referred to as **t-enɨt* 'sister (Z♂)'. Likewise, a female distinguishes between **t-ɨket* 'elder sister (eZ♀)' and **kɨpɨ-ʔɨt* 'younger sister (yZ♀)' but does not distinguish between her older and younger brothers, with both being referred to as **kɨβɨt* 'brother (B♀)'. In terms of sibling terminology, such a pattern has been labelled a "Caddoan pattern" in Murdock (1970: 174) and is shown to be quite rare in his sample, mostly restricted to indigenous languages spoken in the Americas. As discussed in the previous section, there is considerable evidence that parallel cousins were referred to with sibling terminology in PTG, whereas cross-cousins were not.

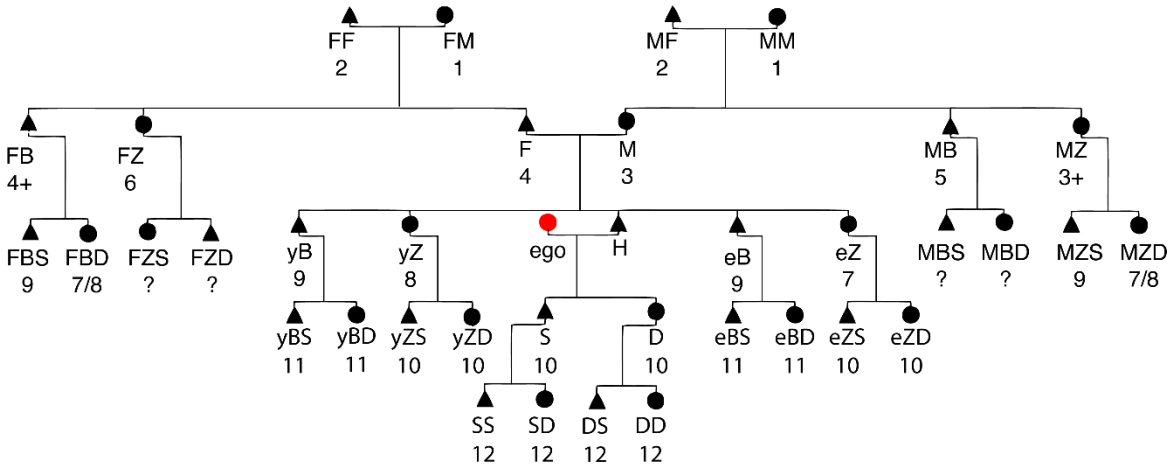
In the generation of Ego's children, nieces and nephews (G-1), it has been possible to reconstruct four distinct terms for male Ego referents and two terms for female Ego referents. There is a sex-based distinction for a man's children through use of the terms **t-ajɨt* 'daughter (D♂)' and **t-aʔɨt* 'son' (S♂), whereas the children of a woman are **memɨt* 'child' (C♀), regardless of sex. The term **memɨt* is also used for a woman's sister's children (ZC=C♀). A woman's brother's children (BC♀) are referred to as **pẽŋ*, regardless of their sex. A man's brother's children are likewise referred to with the same terms as his own children (that is: **t-ajɨt* 'D♂=BD♂'; **t-aʔɨt* 'S♂=BS♂'). As discussed in the previous section, a man's sister's children are referred to with distinct terms, which we have tentatively reconstructed as **jetipet* 'man's sister's daughter (ZD♂)' and **ri(ʔ)ɨt* 'man's sister's son (ZS♂)'. The terminology for a man's offspring and his siblings' offspring can be considered a sex-differentiated bifurcate

[20] Murdock (1970) is notable for being based on an explicitly coded convenience sample of 566 languages stratified geographically across 194 of the 200 culture regions proposed in Murdock (1968), which allows for precise quantitative statements about the distribution of different system types. Much of the adopted terminology stems from Murdock (1949) and earlier works.

merging pattern, whereas those of a woman as a simple bifurcate merging pattern without sex-differentiation, which are the two most common cross-linguistic patterns observed in Murdock (1970).

The final set of reconstructed consanguineal kin terms in PTG are those for one's grandchildren, for which two distinct terms have been identified, ***t-emiarirõ*** 'woman's grandchild (CC♀)' and ***t-em(i/ɨ)m(i/ɨ)nõ*** 'man's grandchild (CC♂)'. Such a system that does not distinguish the sex of the referent but varies depending on the sex of the ego is quite rare in Murdock (1970), attested in only 10 of the 566 languages surveyed, for which he applies the label "speaker's sex pattern".

A summary of the reconstructed terms of consanguineal kin relations for a female Ego is presented in Figure 2, and the corresponding set of terms used for a male Ego is presented in Figure 3.



1	*(j)arɨj	4	*t-up	7	*t-ɨket	11	*peŋ
2	*t-amõj	4+	*t-up-ʔɨt	8	*kɨpɨ-ʔɨt	12	*t-emiarirõ
3	*tsɨ	5	*tutɨt	9	*kɨβɨt		
3+	*tsɨ-ɨt	6	*jajtse	10	*memɨt		

Figure 2: Reconstructed terms for consanguineal kin relations of a female Ego

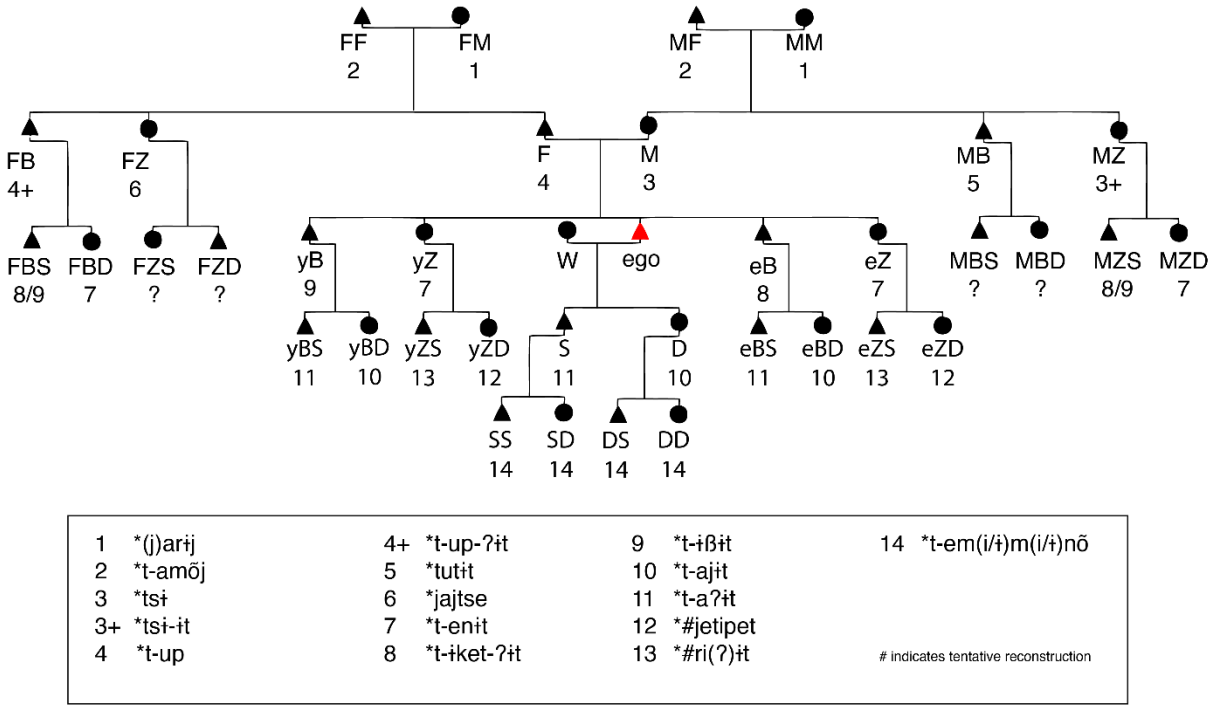


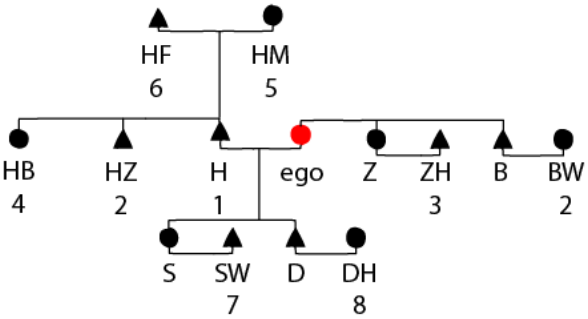
Figure 3: Reconstructed terms for consanguineal kin relations of a male Ego

We have proposed reconstructions of affinal kin terms for three different generations. For one's parent generation, different terms are used for one's parent-in-laws depending on the sex of the Ego. For example, a woman's father-in-law is **-mẽn-up* 'HF' a compound meaning literally "husband's father", while a man's father-in-law is **t-atɨ-up* 'WF', literally "wife's father". Likewise, a woman's mother-in-law is **-mẽn-tsɨ* 'HM' literally "husband's mother", while a man's mother-in-law has its own non-compound term **t-ajtso* 'WM'.

For the affinal relations of one's own generation, we reconstruct the terms **-mẽn* 'husband (H)' and **t-atɨ* 'wife (W)'. For the sibling-in-laws of a female Ego, we have reconstructed the form **-ukeʔi* 'husband's sister/brother's wife (HZ=BW)' but have so far been unable to reconstruct forms for additional relations such as 'woman's sister's husband' and 'husband's brother'. For the sibling-in-laws of a male Ego, we have reconstructed the forms **t-oßajat* 'sister's husband (ZH♂)' and **t-ajro-ʔɨt* 'wife's brother (WB)' but have so far been unable to reconstruct terms for 'man's brother's wife' and 'wife's sister'. Based on these limited reconstructions, it appears that PTG had a system of affines of the same generation that is differentiated both on the sex of the referent as well as the sex of the connecting relative, a variant of what Murdock (1970: 178) calls a "sex-of-link bisexual pattern".

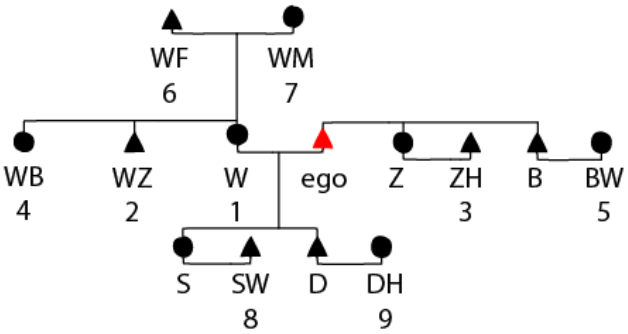
For affines that are related through one's offspring, we have reconstructed four terms that differentiate the sex of the Ego and the sex of the connecting relative. For a female Ego, we have reconstructed the terms **-peũm* 'woman's son-in-law (DH♀)', or more specifically 'daughter's husband', and the compound form **-memɨt-tatɨ* 'woman's daughter-in-law (SW♀)', literally "son's wife". For a male Ego, we have reconstructed the terms **t-aʔɨt-tatɨ* 'man's daughter-in-law (SW♂)' as a compound form meaning literally "man's son's wife", and **t-ajɨt-ßẽn-a* 'man's son-in-law (DH♂)' as a compound form meaning literally "man's daughter's husband" (see the discussion in the etymologies for 'SW♂', **t-aʔɨt-t-atɨ*, and 'SW♀',**memɨt-t-atɨ*, for the formal issue involving the compound forms of **t-atɨ* 'W').

A summary of the reconstructed terms of affine kin relations for a female Ego is presented in Figure 4, and the corresponding set of terms used for a male Ego is presented in Figure 5.



1	ⁿmen	4	?	7	ⁿmemɨt-tatɨ
2	ⁿuke?i	5	ⁿmen-tsɨ	8	ⁿpeum
3	?	6	ⁿmen-t-up		

Figure 4: Reconstructed terms for affinal kin relations of a female Ego



1	ⁿt-atɨ	4	ⁿt-ajro-?ɨt	7	ⁿt-ajtsó
2	?	5	?	8	ⁿt-a?ɨt-t-atɨ
3	ⁿt-oßajar-a	6	ⁿt-atɨ-up	9	ⁿt-ajɨt-ßen-a

Figure 5: Reconstructed terms for affinal kin relations of a male Ego

The common occurrence of Dravidian and Iroquois type kin systems in Amazonia as defined by a bifurcate merging parent's generation is well known and well attested in the ethnological literature (Viveiros de Castro & Fausto 1993). As noted by Lounsbury (1964), the major difference distinguishing these two types is that Iroquois systems tend to have distinct terms for affinal relations, whereas Dravidian systems treat affinal relations with the same terms as consanguine relations. While this distinction was originally conceived of as resulting from a preference for cross-cousin marriage among societies with Dravidian-type terminologies, modern comparative work has shown that there is considerable support for the co-evolution of both allowed and preferred cross-cousin marriage in societies with Iroquois-type terminologies as well (Passmore and Jordan 2020:10). As noted above, we have been able to identify a few distinct affinal kin terms for PTG, many of which are semantically transparent compounds, but further comparative work is still needed on the remaining affinal relationships before an unequivocal classification of the overall system can be made, if indeed possible at all.

In this paper we have proposed the reconstruction of 35 distinct etyma used to express consanguine and affine kin relations in PTG. Some of the proposals confirm previous reconstructions, while others add further information about the reconstructed etyma, such as their inflectional class (see section 3.2) or refined the semantic specification of the kin relation held by their referent. Furthermore, we have proposed a number of new reconstructed forms that have previously been lacking in the literature, especially those denoting relationships with a female Ego, which, as noted in Allen (1989), have often been overlooked when considering the typology of kinship systems. It is hoped that as further descriptive and comparative work is carried out with Tupi-Guarani languages, any remaining gaps in the kin terms of PTG can eventually be filled in.

References

Allen, N. J. (1989). The evolution of kinship terminologies. *Lingua* 77(2): 173-185. https://doi.org/10.1016/0024-3841(89)90014-4

Almeida, Antônio; Irmãzinhas de Jesus; de Paula, Luiz G. (1983). *A língua Tapirapé*. Rio de Janeiro: Biblioteca Reprográfica Xerox.

Anchieta, Joseph de (1595). *Arte de grammatica da lingoa mais usada na costa do Brasil.* Coimbra: Antonio Mariz.

Araújo, Antonio de (1686). *Catecismo na Lingoa Brasilica.* Fac-Simile Edition of 1898, by Julius Platzmann. Leipzig: B.G Teubner.

Arnaud, Expedito (1963). A terminologia de parentesco dos índios Asurini. *Revista do Museu Paulista* XIV: 105-119.

Arnaud, Expedito; Galvão, Eduardo (1969). Notícia sobre os índios Anambé (Rio Caiari, Pará). *Boletim do Museu Paraense Emilio Goeldi* 42: 1-17.

Aronoff, Mark (1994). *Morphology by Itself*. Cambridge: MIT Press.

Balée, William (1984). *The persistence of Ka'apor culture* (Doctoral dissertation). New York: Columbia University.

Betts, LaVera (2012). *Kagwahiva Dictionary*. Goiânia: Summer Institute of Linguistics (SIL).

Birchall, Joshua; Oliveira, Luis Henrique; Jordan, Fiona M. (2019). Nota sobre o sistema de parentesco em Proto-Tupí-Guaraní. *Boletim do Museu Paraense Emílio Goeldi. Ciências Humanas* 14(1): 79-99. https://doi.org/10.1590/1981.81222019000100006

Borges, Mônica Veloso (2006). *Aspectos fonológicos e morfossintáticos da língua Avá-Canoeiro (Tupi-Guarani)* (Doctoral dissertation). Campinas: UNICAMP. http://repositorio.unicamp.br/jspui/handle/REPOSIP/270406

Boudin, Max H. (1978). *Dicionário de Tupi Moderno: Dialeto Tembé-Tenetehár do Alto do Rio Gurupi*. São Paulo: Conselho Estadual de Artes e Ciências Humanas.

Cabral, Ana S. A. C.; Rodrigues, Aryon D. (2003). *Dicionário Asurini do Tocantins-Português.* Belém: UFPA.

Camargo, Eliane; Tapinkili, Anaiman (2009). *Dictionnaire bilingue Wayana-Français*. CELIA/CNRS. http://celia.cnrs.fr/FichExt/Dic_alphas/wayana_francais/.

Cadogan, León (1992). *Diccionario Mbya-Guarani Castellano*. Asunción: Fundación "León Cadogan" / CEADUC-CEPAG.

Carvalho, Fernando O. de (In preparation). *The historical phonology of the Tupi-Guarani language family*. Language Science Press.

Cormier, Loretta A. (2003). *Kinship with monkeys: The Guajá foragers of Eastern Amazonia*. New York: Columbia University Press.

Côrrea da Silva, Beatriz C. (2007). Mais fundamentos para a hipótese de Rodrigues (1984/1985) de um Proto-Aweti-Tupi-Guarani. In Aryon D. Rodrigues; Ana Suelly A. C. Cabral (eds.), *Línguas e culturas Tupi*, pp. 219-240. Campinas: Curt Nimuendajú.

Côrrea da Silva, Beatriz C. (2010). *Mawé/Awetí/Tupí-Guaraní: Relações linguísticas e implicações históricas* (Doctoral dissertation). Brasília: Universidade de Brasília.

Courtz, Hendrik (2008). *A Carib grammar and dictionary*. Toronto: Magoria Books.

Crowhurst, Megan (2002). Un intercambio de vocales altas en el Sirionó (Tupí-Guaraní). *LIAMES- Línguas Indígenas Americanas* 2: 7-28. https://doi.org/10.20396/liames.v2i1.1402

Danielsen, Swintha; Sell, Lena; Terhart, Lena (2019). *Guarayu: A revised dictionary by Alfred Hoeller*. Dictionaria 7: 1-3590. https://doi.org/10.5281/zenodo.3340718 https://dictionaria.clld.org/contributions/guarayu

De Canese, Natalia Krivoshein de (1983). *Gramatica de la lengua guarani*. Asunción: Colección Ñemity.

Dietrich, Wolf (1986). *El idioma chiriguano: Gramática, textos, vocabulario*. Madrid: Ediciones Cultura Hispánica, Instituto de Cooperación Iberoamericana.

Dietrich, Wolf (2014). Conservação e inovação no campo léxico do parentesco: O caso do Mbyá e do Guarani Paraguaio (Tupí-Guaraní). *Revista Brasileira de Linguística Antropológica* 6(1): 195-216. https://doi.org/10.26512/rbla.v6i1.21066

Dietrich, Wolf (2015). Lexicología y fonología históricas del Aché. *Boletim do Museu Paraense Emilio Goeldi* 10(2): 395-418. https://doi.org/10.1590/1981-81222015000200010

Dietrich, Wolf; Kallfell, Guido; Thun, Harald (2015). *Atlas lingüístico Guaraní-Románico (ALGR)*: TII: Léxico del Parentesco. Kiel: Westensee Verlag.

Dooley, Robert A. (1991) *Apontamentos preliminares sobre Ñandéva Guarani contemporâneo*. Cuiabá: Sociedade Internacional de Linguística (SIL).

Dooley, Robert A. (1998). *Léxico Guaraní, dialeto Mbyá*. Porto Velho: Sociedade Internacional de Linguística (SIL). https://www.sil.org/system/files/reapdata/16/91/89/169189115652017518143129200809439098203/gndiclex.pdf

Drude, Sebastian; Meira, Sérgio (2015). A summary reconstruction of Proto-Mawetí-Guaraní segmental phonology. *Boletim Do Museu Paraense Emílio Goeldi, Ciências Humanas* 10(2): 275–296. https://doi.org/10.1590/1981-81222015000200005

Eriksen, Love; Galucio, Ana Vilacy (2014). The Tupian expansion. In Pieter Muysken; Loretta O'Connor (eds.), *The native languages of South America: Origins, development, typology*, pp. 177-202. Cambridge: Cambridge University Press.

Fausto, Carlos (1995). De primos e sobrinhas: Terminologia e aliança entre os Parakanã (Tupi) do Pará. In Eduardo B. Viveiros de Castro (ed.), *Antropologia do parentesco: Estudos Ameríndios*, pp. 61-119. Rio de Janeiro: UFRJ.

Galvão, Eduardo (1953). Cultura e sistema de parentesco das tribos do Alto Xingu. *Antropologia* 14: 1-33.

Gasparini, Noé; Dicarere Mendez, Victor Hugo (2015). *Diccionario Siriono*. Trinidad: Editorial Tiempos del Beni.

Godoy, Gustavo (2017). Kin terms in Ka'apor. Paper presented at the Workshop on Tupian and Cariban Kinship Terminology, Belém.

Gomes, Dioney M. (2006). *Estudo morfológico e sintático da língua Mundurukú (Tupí)* (Doctoral dissertation). Brasília: Universidade de Brasília (UnB).

Grenand, Françoise (1989). *Dictionnaire Wayãpi-Français: Lexique Français-Wayãpi*. Paris: Peeters/SELAF.

Harrison, Carl; Harrison, Carole (2013). *Dicionário Guajajara-Português*. Anápolis: Associação Internacional de Linguística (SIL). https://www.sil.org/system/files/reapdata/14/15/80/141580492686378971823968698096869774884/Dicionario_Guajajara_Portugues.pdf

Hoeller, Alfred (1932). *Diccionario Guarayu-Castellano*. Ascensión de Guarayus: COPNAG.

Holmberg, Allan R. (1950). *Nomads of the long bow: The Siriono of Eastern Bolivia*. Washington: US Government Printing Office.

Hurault, Jean; Frenay, P. (1963). Les indiens Émerillon de la Guyane Française. *Journal de la Société des Américanistes* 52: 133-156. https://www.persee.fr/doc/jsa_0037-9174_1963_num_52_1_1998

Jensen, Cheryl (1984). *O desenvolvimento histórico da língua Wayampi* (MA Thesis). Campinas: UNICAMP. http://repositorio.unicamp.br/jspui/handle/REPOSIP/270449

Jensen, Cheryl (1990). Cross-referencing changes in some Tupi-Guarani languages. In D. Derbyshire; G. K. Pullum (eds.), *Handbook of Amazonian Languages*, vol. 1, pp. 407-439. Berlin: Mouton de Gruyter.

Jensen, Cheryl (1998). Comparative Tupí-Guaraní morphosyntax. In D. Derbyshire; G. K. Pullum (eds.), *Handbook of Amazonian Languages*, vol. 4, pp. 487-618. Berlin: Mouton de Gruyter.

Jensen, Cheryl (1999). Tupí-Guaraní. In R. M. W. Dixon; Alexandra Y. Aikhenvald (eds.), *The Amazonian Languages*, pp. 125-163. Cambridge: Cambridge University Press.

Julião, Maria R. (1993). *A língua dos índios do rio Cairari* (MA Thesis). Belém: UFPA.

Julião, Maria R. (2005). *Aspects morphosyntaxiques de l'Anambe* (Doctoral dissertation). Toulouse: Université de Toulouse.

Kakamasu, James; Kakamasu, Kiyoko (2007). *Dicionário por tópicos Kaapor-Português*. Cuiabá: Associação Internacional de Linguística (SIL).

Koehn, Edward; Koehn, Sally S. (1995). *Vocabulário básico Apalaí-Português*. Cuiabá: Sociedade Internacional de Linguística (SIL).

Lemle, Miriam (1971). Internal classification of the Tupi-Guarani linguistic family. In David Bendor-Samuel (ed.), *Tupi studies I.*, pp. 107-129. Norman: Summer Institute of Linguistics of the University of Oklahoma.

Lévi-Strauss, Claude (1969). *The elementary structures of kinship*. Boston: Beacon Press.

Lounsbury, Floyd G. (1964). *A formal account of the Crow-and Omaha-type kinship terminologies*. Bobbs-Merrill.

Matthews, Peter H. (1991). *Morphology*. 2nd Edition. Cambridge: CUP.

Meira, Sérgio; Drude, Sebastian (2013). Sobre a origem histórica dos "prefixos relacionais'' das línguas Tupí-Guaraní. *Cadernos de Etnolingüística* 5(1): 1–30.

Meira, Sérgio; Drude, Sebastian (2015). A summary reconstruction of proto-maweti-guarani segmental phonology. *Boletim do Museu Paraense Emílio Goeldi, Ciências Humanas* 10(2): 275-296. https://doi.org/10.1590/1981-81222015000200005

Mello, Antônio Augusto Souza (2000). *Estudo histórico da família linguística Tupí-Guaraní: Aspectos fonológicos e lexicais* (Doctoral dissertation). Florianópolis: Universidade Federal de Santa Catarina.

Montoya, Antonio R. (1639). *Tesoro de la lengua Guarani*. Madrid: Juan Sanchez.

Montoya, Antonio R. (1640). *Catecismo de la lengua Guarani*. Madrid: Diego Diaz de la Carrera.

Murdock, George Peter (1949). *Social structure*. Oxford: Macmillan.

Murdock, George Peter (1968). World sampling provinces. *Ethnology* 7(3): 305-326. https://doi.org/10.2307/3772896

Murdock, George Peter (1970). Kin term patterns and their distribution. *Ethnology* 9(2): 165-208.

Nogueira, Antônia (2019). *Predicação na língua Wayoro (Tupi): Propriedades de finitude* (Doctoral dissertation). São Paulo: Universidade de São Paulo.

Nogueira, Antônia Fernanda Souza; Galucio, Ana Vilacy; Soares-Pinto, Nicole; Singerman, Adam Roth (2019). Termos de parentesco nas línguas Tuparí (família Tupí). *Boletim do Museu Paraense Emílio Goeldi, Ciências Humanas* 14(1): 33-64. http://dx.doi.org/10.1590/1981.81222019000100004

Passmore, Sam; Jordan; Fiona M. (2020). No universals in the cultural evolution of kinship terminology. *Evolutionary Human Sciences* 2 (e42): 1-14. https://doi.org/10.1017/ehs.2020.41

Peggion, Edmundo A. (1996). *Forma e função: Uma etnografia do sistema de parentesco Tenharim (Kagwahiv, AM)* (MA thesis). Campinas: UNICAMP.

Peralta, Anselmo J.; Tomas Osuna (1950). *Diccionario Guaraní-Español y Español-Guaraní*. Buenos Aires: Editorial Tupã.

Pereira, Antônia Alves (2009). *Estudo morfossintático do Asuriní do Xingu* (Doctoral dissertation). Campinas: UNICAMP. http://www.repositorio.unicamp.br/handle/REPOSIP/270869

Ramirez, Henri; Vegini, Valdir; França, Maria Cristina Victorino de (2017). O Warázu do Guaporé (Tupi-Guarani): Primeira descrição linguística. *LIAMES-Línguas Indígenas Americanas* 17(2): 411-506.https://doi.org/10.20396/liames.v17i0.8647468

Restivo, Pablo (1722). *Lexicon Hispano-Guaranicum*. Published in 1893. Stuttgart: Wilhelm Kohlhammer.

Ribeiro, Darcy (1996). *Diários Índios: Os Urubu-Kaapor*. São Paulo: Companhia das Letras.

Rodrigues, Aryon Dall'Igna (1985). Relações internas na família linguística Tupí-Guaraní. *Revista de Antropologia* 27/28: 33-53.

Rodrigues, Aryon Dall'Igna (1998). Dois exercícios de etimologia Tupi: 'Esposa' e 'Boca'. *Moara* 9: 33-51.

Rodrigues, Aryon Dall'Igna (2005). As vogais orais do Proto-Tupí. In Aryon Dall'Igna Rodrigues; Ana Suelly Arruda Câmara Cabral (eds.), *Novos estudos sobre línguas indígenas*, pp. 35–46. Brasília: Editora da UnB.

Rodrigues, Aryon Dall'Igna (2007). As consoantes do Proto-Tupí. In Ana Suelly Arruda Câmara Cabral; Aryon Dall'Igna Rodrigues (eds.), *Línguas e culturas Tupí*, pp. 167–203. Campinas: Curt Nimuendajú.

Rodrigues, Aryon Dall'Igna (2010). Linguistic reconstruction of elements of prehistoric Tupi culture. In Eithne B. Carlin; Simon van de Kerke (eds.), *Linguistics and archaeology in the Americas: The historization of language and society*, pp. 1–10. Leiden: Brill

Rodrigues, Aryon Dall'Igna; Cabral, Ana S. A. (2002). Revendo a classificação interna da família Tupí-Guaraní. In A.S.A.C. Cabral; Aryon D. Rodrigues (eds.), *Línguas indígenas brasileiras: fonologia, gramática e história*, pp. 327-337. Belém: UFPA

Rodrigues, Aryon Dall'Igna; Dietrich, Wolf (1997). On the linguistic relationship between Mawé and Tupí-Guaraní. *Diachronica* 14(2): 265–304. https://doi.org/10.1075/dia.14.2.04rod

Rose, Françoise (2015). When "you" and "I" mess around the hierarchy: A comparative study of Tupi-Guarani hierarchical indexing systems. *Boletim do Museu Paraense Emílio Goeldi* 10(2): 347-362. https://doi.org/10.1590/1981-81222015000200008

Santos, Eliete de Jesus B. (2009). *Descrição gramatical da língua Araweté* (Doctoral dissertation). Brasília: Universidade de Brasília.

Schermair, Anselmo Ebner (1949) *Gramática de la lengua Sirionó*. La Paz: Bolivia.

Schermair, Anselmo Ebner (1957). *Vocabulario Sirionó-Castellano.* Innsbruck: Sprachwissenschaftliches Seminars der Universität Innsbruck.

Schleicher, Charles O. (1998). *Comparative and internal reconstruction of the Tupi-Guarani language family* (Doctoral dissertation). Madison: University of Wisconsin.

Seki, Lucy (1990). Kamayurá (Tupi-Guarani) as an active-stative language. In Doris L. Payne (ed.), *Amazonian linguistics: Studies in lowland South American languages*, pp. 367-391. Austin: University of Texas Press.

Seki, Lucy (2000). *Gramática Kamaiurá: Língua Tupi-Guarani do Alto Xingu*. Campinas: Editora UNICAMP.

Silva, Gino F. (2003). *Construindo um dicionário Parakanã-Português* (MA thesis). Belém: Universidade Federal do Pará (UFPA).

Silva, Cristhian Teófilo da (2005). *Cativando Maíra: A sobrevivência Avá-Canoeiro no Alto Tocantins* (Doctoral dissertation). Brasília: Universidade de Brasília.

Solano, Eliete de Jesus Bararuá (2009). *Descrição gramatical da língua Araweté* (Doctoral dissertation). Brasília: Universidade de Brasília.

Souza, Patrícia de Oliveira Borges e. (2004). *Estudos de aspectos da língua Kaiabi (Tupi)* (MA Thesis). Campinas: UNICAMP.

Storto, Luciana (1999). *Aspects of a Karitiána grammar* (Doctoral dissertation). Cambridge: Massachusetts Institute of Technology.

Storto, Luciana (2019). Kin terms in Karitiana and how they may contribute to the reconstruction of Proto-Tupian kin terminology. *Boletim do Museu Paraense Emílio Goeldi, Ciências Humanas* 14(1): 121-130. https://doi.org/10.1590/1981.81222019000100008

Taylor, John (1984). *Marcação temporal na língua Kaiwá.* Brasília: Sociedade Internacional de Linguística (SIL).

Thompson, Warren (2019). Kinship on the wing. Patterns in the residence, mobility, and alliance for Ache hunter-gatherers. *Boletim do Museu Paraense Emílio Goeldi, Ciências Humanas* 14(1): 131-145. https://doi.org/10.1590/1981.81222019000100009

Vallejos, Rosa; Amías; Rosa (2015). *Diccionario Kukama-Kukamiria - Castellano*. Iquitos: FORMABIAP. https://formabiap.org/wp-content/uploads/2020/05/7-Diccionario-Kukama-Kukamiria-red.pdf

Viveiros de Castro, Eduardo (1986). *Araweté: Os Deuses Canibais*. Rio de Janeiro: Jorge Zahar.

Viveiros de Castro, Eduardo; Fausto, Carlos (1993). La puissance et l'acte. La parenté dans les basses terres de l'Amérique du Sud. *L'Homme* 126(128): 141–170.

VLB. *Vocabulário na Língua Brasílica*. 1952 edition in two volumes of the anonymous 16th century Old Tupi vocabulary. Carlos Drumond (ed.). Faculdade de Filosofia, Ciências e Letras, Universidade de São Paulo (USP), Boletim 137. São Paulo: Brazil. https://sites.google.com/site/vocabularionalinguabrasilica/

Wagley, Charles (1977). *Welcome of tears: The Tapirapé Indians of Central Brazil.* New York: Oxford University Press.

Wagley, Charles; Galvão, Eduardo (1946). O parentesco Tupi-Guarani. *Boletim Do Museu Nacional* 6: 1–24.

Watson, Virginia D. (1944). Notas sobre o sistema de parentesco dos índios Cayuá. *Sociologia VI:* 31-48.

Weiss, Helga (1985). Kayabi (Tupian) kinship terminology. In William Merrifield (ed.), *South American kinship: Eight kinship systems from Brazil and Colombia*, pp. 113-122. Dallas: International Museum of Cultures.

Weiss, Helga (2005). *Dicionário Kayabi-Português*. Brasília: Sociedade Internacional de Linguística (SIL).

Recebido: 25/07/2021
Versão revista e corrigida: 30/1/2022
Versão aceita: 21/2/2022
Publicado: 22/2/2022